



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

September 26, 2002

Addendum No. 3

RE: State Project: 6.549008T, 6.569006T, 6.569007T
Lee-Moore Counties (R-210C, R-210A, R-210B)
US-1 From South of SR-1853 and SR-2175, North
of Lakeview to SR-1180 South of Sanford.

SEPTEMBER 30, 2002 Special Letting

To Whom It May Concern:

Reference is made to the proposal and structure plans recently furnished to you on the above project.

The advertisement period for the above project has been extended from the September 24, 2002 Special Letting to the **September 30, 2002 Special Letting**.

Sealed bids for the construction of this project will be opened and read in the **Large Design Services Conference Room, Century Center Complex, Building B, 1020 Birch Ridge Drive, Raleigh, NC, (Enter Door B2) at 2:00 PM on the 30th day of September 2002**. No bids will be received after 2:00 PM. Bids submitted on the same day they are to be opened shall be delivered to the office of the Contract Officer, Mr. Randy Garriss or to the Design Services Conference Room (Enter Door B2.)

The following revisions have been made to the proposal form:

On the cover sheet, please draw a single line thru the "24" (date of bid opening) and insert "30" and initial same in ink. Also draw a single line thru 10:00 AM (time of bid opening) and insert 2:00 PM and initial same in ink (Sample Attached).

On page no.7, the project special provision entitled "On Line Electronic Bidding" has been revised to require the proposal form to be **received prior to bid opening**. Please void page no. 7 in your proposal form and staple the revised page no.7 thereto.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
CONTRACTS & PROPOSALS
1591 MAIL SERVICE CENTER
RALEIGH NC 27699-1591

TELEPHONE: 919-250-4124
FAX: 919-250-4127

WEBSITE: WWW.DOH.DOT.STATE.NC.US

LOCATION:
CENTURY CENTER COMPLEX
BUILDING B - ENTRANCE B15
1020 BIRCH RIDGE DRIVE
RALEIGH NC

On page no. 9 the provision entitled "Minority and Women Business" has been revised to state that if information must be submitted to support a good faith effort **by either of the two lowest bidders** it must be received in the office of the State Contractual Services Engineer no later than **12:00 Noon October 1, 2002**. Please void page no.9 in your proposal form and staple the revised page no.9 thereto.

On page no.29 the project special provision entitled "Restrictions on Construction of Embankment" has been revised to reduce the waiting period at two bridge locations. Please void page no. 29 in your proposal and staple the revised page no. 29 thereto.

On page no. 205 the first paragraph of the project special provision entitled "Permits" has been revised and a new paragraph concerning "Hazardous Spill Basins" has been added. Please void page no. 205 in your proposal and staple the revised page no. 205 thereto.

New page nos. 206 thru 345 are being added. Please staple new page nos. 206 thru 345 after revised page no. 205 in your proposal.

The Table of Contents has been revised to reflect the above noted changes. Please void the first page of the Table of Contents and staple the revised page thereto.

The following revisions have been made to the structure plans:

Sheet nos. S-372, S-373, S-401 and S-402 have been revised to correct girder strand locations. Sheets nos. S-297, S-298, S-299, S-332, S-333 and S-334 have been revised to remove deck drains from Span B. Please void sheet nos. S-297, S-298, S-299, S-332, S-333, S-334, S-372, S-373, S-401 and S-402 in your plans and staple the revised sheet nos. S-297, S-298, S-299, S-332, S-333, S-334, S-372, S-373, S-401 and S-402 thereto.

We are sending new diskettes to those bidders who requested diskettes when ordering proposal for the above referenced project. For this project **only**, please **do not** use the diskette furnished for the September 24, 2002 Special Letting but instead use the diskette for the September 30, 2002 Special Letting dated 9/26 /02.

Sincerely,

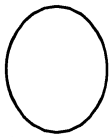


R. A. Garriss, P.E.
Contract Officer

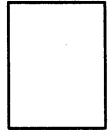
RAG/jag/pa
(Attachments)

cc: Mr. J. D. Goins, P.E.
Mr. S. D. DeWitt, P.E.
Mr. W. F. Rosser, P.E.
Ms. D. M. Barbour, P.E.
Mr. J. V. Barbour, P.E.
Mr. G. R. Perfetti, P.E.

Mr. Mark Staley (2)
Mr. Ayden Flowers
Mr. R. E. Davenport, Jr., P.E.
Ms. Kim Canady
Ms. Yang Steelman
Project File (2)



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.



PROPOSAL

VOID FOR BIDDING

DATE AND TIME OF BID OPENING: **SEPTEMBER 17, 2002** **AT 10:00 AM**
JAG 30 JAG 24 *JAG 2:00 PM*

CONTRACT ID C200428

WORK ORDER NO. 6.549008T, 6.569006T, 6.569007T

FEDERAL-AID NO. STATE FUNDED

COUNTY LEE, MOORE

T.I.P. NO. R-210C, R-210A, R-210B

KILOMETERS 20.482

ROUTE NO. US 1

LOCATION US-1 FROM SOUTH OF SR-1853 & SR-2175, NORTH OF LAKEVIEW, TO
SR-1180 SOUTH OF SANFORD.

TYPE OF WORK GRADING, DRAINAGE, PAVING & STRUCTURES.

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE
GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING
ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALITY WORK AS DETERMINED BY THE LICENSING BOARD.
BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING
AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA.

BIDS WILL BE RECEIVED AS SHOWN BELOW: \$ _____

THIS IS A ROADWAY & STRUCTURE PROPOSAL _____

5% BID BOND OR BID DEPOSIT REQUIRED _____

6.549008T, ETC.
Lee-Moore Counties

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Contractor name clearly labeled, to be received **prior to bid opening.**

All deliveries other than hand delivery shall be by overnight carrier to the following address:

Physical Address:

State Contract Officer
Design Services Unit
Century Center Bldg. B
1020 Birch Ridge Drive
Raleigh, NC 27610

6. The Department is not responsible if a Bidder cannot submit its bid to Bid ExpressTM. Claims will not be accepted for this. In the event of technical difficulties, the Department reserves the right to postpone the reading of bids for up to four (4) hours past the advertised bid opening time. SP1G60

MINORITY AND WOMEN BUSINESS:

7-17-01

POLICY

It is the policy of the North Carolina Department of Transportation that minority and women businesses shall have the maximum opportunity to participate in the performance of contracts financed by Non-Federal Funds.

OBLIGATION

The Contractor and any subsequent Subcontractor shall ensure that minority and women businesses have the maximum opportunity to participate in the performance of the work included in this contract. The Contractor and any subsequent Subcontractor shall take all necessary and reasonable steps to ensure that minority and women businesses have the maximum opportunity to compete for and perform a portion of the work included in this contract and shall not discriminate on the basis of race, color, national origin or sex. Failure on the part of the Contractor to carry out the requirements set forth herein shall constitute a breach of contract and after proper notification, may result in award disqualification, termination of the contract, disqualification from bidding, or other appropriate remedy.

GOALS

Pursuant to the requirements of North Carolina General Statute 136-28.4, the following goals for participation are established for this contract:

Minority Business Enterprises 10%
Women Business Enterprises 3%

The Contractor shall exercise all necessary and reasonable steps to ensure that Minority Businesses (MB) and Women Businesses (WB) participate in at least the percents of the contract as set forth above as goals for this contract.

Failure to indicate the required information on the specified form will cause the bid to be considered nonresponsive and it may be rejected.

The Department will not allow any substitutions, deletions, or other alterations to the listing of firms committed for MB and WB participation and/or the respective listed contract item numbers after opening of bids. The Department will not allow adjustments to total dollar amount of MB and/or WB participation after the opening of bids which would result in the MB and/or WB participation being less than the contract goal. The only exceptions to the requirements of this paragraph will be: (1) to allow for replacement of a MB or WB firm that had been decertified after opening of bids, and (2) to allow alteration of the listed contract item numbers subject to the Bidder submitting sufficient documentation to verify an obvious error in the initial submittal.

- B. If the bid of the lowest responsive bidder exceeds \$500,000 and if the MB and/or WB participation submitted in response to Paragraph A exceeds the algebraic sum of the MB and WB goals by \$1000 or more, the excess will be placed on deposit by the Department for future use by the bidder. Separate accounts will be maintained for MB and WB participation and these may accumulate for a period not to exceed 24 months.

If the MB and WB participation submitted in response to Paragraph A does not meet or exceed the MB and WB contract goals, the apparent two lowest responsive bidders must submit information to satisfy the North Carolina Department of Transportation that sufficient reasonable efforts have been made to meet the contract goals. One complete set and nine (9) copies of this information must be received in the office of the State Contractual Services Engineer no later than **12:00 NOON October 1, 2002**. Where the information submitted includes repetitious solicitation letters it will be acceptable to submit a sample representative letter along with a distribution list of the firms being solicited. Documentation of MB and WB quotations shall be a part of the good faith effort submittal as necessary to demonstrate compliance with the factors listed below which the Department considers in judging good faith efforts. This documentation may include written subcontractor quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

Where the bidder fails to provide this information by the deadline, the Department may impose the following sanctions: (1) disqualify the contractor and any affiliated companies from further bidding for a period of time of no more than 90 days from the date of disqualification as established in notification by certified mail; and (2) disqualify the Contractor and any affiliated companies for award of all contracts for which bids have been received and opened.

The following factors are what the Department will consider in judging whether or not the bidder has made adequate good faith effort:

- (1) Whether the bidder attended any pre-bid meetings that were scheduled by the Department to inform MBs and WBs of subcontracting opportunities;

Material generated from undercut excavation, unclassified excavation or clearing and grubbing operations that is placed directly on shoulders or slope areas, will not be measured separately for payment, as payment for the work requiring the excavation will be considered adequate compensation for depositing and grading the material on the shoulders or slopes.

When undercut excavation is performed at the direction of the Engineer and the material excavated is found to be suitable for use as shoulder and fill slope material, and there is no area on the project currently prepared to receive the material generated by the undercut operation, the Contractor may construct a stockpile for use as borrow at a later date. Payment for the material used from the stockpile will be made at the contract unit price for "Borrow Excavation" or "Shoulder Borrow".

When shoulder material is obtained from borrow sources or from stockpiled material, payment for the work of shoulder construction will be made at the contract unit price per cubic yard (cubic meter) for "Borrow Excavation" or "Shoulder Borrow" in accordance with the applicable provisions of Section 230 or Section 560 of the Standard Specifications.

SP2R50

RESTRICTIONS ON CONSTRUCTION OF EMBANKMENT:

7-1-95

For Project R-210A, construct the embankments for the structures to the finished graded roadway section and do not begin any work on all bridge end bents as listed below:

One-month (1) waiting period for bridges on all end bents at Station 25+20 –L-Left and Right Lane Bridges

One-month (1) waiting period for bridge on all end bents at Station 81+03 –L-Left Lane

One-month (1) waiting period for bridge on all end bents at Station 80+85 –L-Right Lane Bridge

One-month (1) waiting period for bridges on all end bents at Station 13+88 -Y4-, 14+30 -Y3- and 12+49 -Y2-

The Contractor will be required to maintain the embankments at finished graded roadway section during the waiting period. Additional earth material required to maintain embankment of finished graded roadway section will be paid for at the contract unit price per cubic yard (cubic meter) for "Borrow Excavation" or "Unclassified Excavation" as the case may be.

SP2R65

RESTRICTIONS ON CONSTRUCTION OF EMBANKMENT:

7-1-95

For Projects R-210B & C, construct the embankments for the structures to the finished graded roadway section and do not begin any work on all bridge end bents as listed below:

PROJECT SPECIAL PROVISIONS
PERMITS

The Contractor's attention is directed to the following permits which have been issued to the Department of Transportation by the authority granting the permit.

PERMIT**AUTHORITY GRANTING THE PERMIT**

Dredge and Fill and/or
Work in Navigable Waters

U. S. Army Corps of Engineers

Water Quality

Division of Environmental Management, DEHNR
State of North Carolina

The Contractor shall comply with all applicable permit conditions during construction of this project. Those conditions marked by * are the responsibility of the department and the Contractor has no responsibility in accomplishing those conditions.

Agents of the permitting authority will periodically inspect the project for adherence to the permits.

The Contractor's attention is also directed to Articles 107-10 and 107-14 of the Standard Specifications and the following:

Should the Contractor propose to utilize construction methods (such as temporary structures or fill in waters and/or wetlands for haul roads, work platforms, cofferdams, etc.) not specifically identified in the permit (individual, general, or nationwide) authorizing the project it shall be the Contractor's responsibility to coordinate with the appropriate permit agency to determine what, if any, additional permit action is required. The Contractor shall also be responsible for initiating the request for the authorization of such construction method by the permitting agency. The request shall be submitted through the Engineer. The Contractor shall not utilize the construction method until it is approved by the permitting agency. The request normally takes approximately 60 days to process; however, no extensions of time or additional compensation will be granted for delays resulting from the Contractor's request for approval of construction methods not specifically identified in the permit.

Where construction moratoriums are contained in a permit condition which restricts the Contractor's activities to certain times of the year, those moratoriums will apply only to the portions of the work taking place in the waters or wetlands provided that activities outside those areas is done in such a manner as to not affect the waters or wetlands.

SPECIAL NOTICE CONCERNING HAZARDOUS SPILL BASINS:

The Contractor's attention is directed to the fact that Hazardous Spill Basins will be required at all stream crossings. Hazardous spill basins are not detailed on the plans and will be added by supplemental agreement in order to be in conformance with the permit requirements. Extensions of time will not be granted for the additional work of constructing the basins.

DEPARTMENT OF THE ARMY PERMIT

NC Department of Transportation

Permittee _____

199300570

Permit No. _____

CESAW-RG-L

Issuing Office _____

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

Place dredged and/or fill material into Little River, Little Juniper Creek, Crane Creek and Little Crane Creek and their tributaries impacting a total of 4,880 linear feet of streams and 41.5 acres of wetlands to facilitate the construction of 12.8 miles of U.S. 1, Transportation Improvements Project (TIP) R-210, State Project Number 8.T560302. . This authorization also includes the installation of Fiber Optic Cable in the mainline road right-of-way from centerline station 23+20 to 29+25.

Project Location:

In the Cape Fear River basin, from the existing U.S. 1 four-lane facility south of Camp Easter Road (SR 1853) at Lakeview in Moore County to the existing four-lane facility at Wild Life Road (SR 1180) south of Sanford in Lee County, North Carolina

Permit Conditions:**General Conditions:**

1. The time limit for completing the work authorized ends on December 31, 2005. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

See enclosed sheet.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - () Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - (☒) Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
- 4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.


 (PERMITTEE)
 NC DEPARTMENT OF TRANSPORTATION

26 Sept 02
 (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

 (DISTRICT ENGINEER)
 CHARLES R. ALEXANDER, JR. COLONEL

 (DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

 (TRANSFeree)

 (DATE)



209

July 19, 2002

Mr. William D. Gilmore, P.E., Manager
NCDOT Planning and Environmental Branch
1548 Mail Service Center
Raleigh, NC, 27699-1548

Dear Mr. Gilmore:

Re: Water Quality Certification Pursuant to §401 of the Federal Clean
Water Act, US 1 from north of Lakeview to south of Sanford
(Vass Bypass), Moore/Lee Counties
TIP No. R-210
DWQ Project No. 010404

Attached hereto is a copy of Certification No. 3344 issued to The North Carolina Department of
Transportation dated July 19, 2002.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,

Alan W. Klimek, P.E.

Attachments

cc: Richard Spencer, USACE Wilmington Field Office
Ken Averitte, NCDWQ Fayetteville Regional Office
Public Hearing Attendees
Central Files
File Copy

NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500. This certification authorizes the NCDOT to incur the following permanent impacts: 41.5 acres of jurisdictional wetlands through permanent fill, excavation, and mechanized clearing; 14.50 acres of surface waters (anthropogenically-created ponds) fill; and 4,880 linear feet of stream channels in Moore and Lee Counties, as described in the Application dated 19 February 2001, and additional information dated 12 February 2002 and 15 March 2002. The project shall be constructed pursuant to the application dated February 19 filed to construct improvements to US 1 from north of Lakeview to south of Sanford (Vass Bypass, TIP Project No. R-210).

The application provides adequate assurance that the discharge of fill material into the waters of the state with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application. Should your project change, you are required to notify the DWQ *in writing*, and you may be required to submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If this project incurs additional wetland or stream impacts, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion Control, Non-discharge and Water Supply watershed regulations. This Certification shall expire three (3) years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Corps of Engineers Permit, whichever is sooner.

Condition(s) of Certification:

1. The applicant must follow the appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of *the North Carolina Sediment and Erosion Control Planning and Design Manual* or *the North Carolina Surface Mining Manual*, whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) and shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard (50 NTUs in all fresh water streams and rivers not designated as trout waters; 25 NTUs in all lakes and reservoirs, and all saltwater classes; and 10 NTUs in trout waters);
2. NCDOT shall use *Best Management Practices for the Protection of Surface Waters* (NCDOT March 1997), specifically using all applicable preventive and control measures during the design, construction and maintenance of this project. These measures shall be implemented prior to any ground-disturbing activities to minimize impacts to downstream aquatic resources.

3. During the construction of the project, the applicant shall strictly adhere to North Carolina regulations entitled, *Design Standards in Sensitive Watersheds* [15A NCAC 4B .0124(a)-(d)], within the entire project corridor.
4. Storm water shall be directed to buffer areas or retention basins and shall not be routed directly into streams. Existing vegetated buffers shall not be mowed in order to utilize it for storm water diffuse flow.
5. Temporary or permanent herbaceous vegetation shall be planted on all bare soil *within 10 days* of ground-disturbing activities (due to the presence of High Quality Waters) to provide long term erosion control.
6. NCDOT shall adhere to the requirements for High Quality Waters [15A NCAC 2B .0224].
7. Hazardous Spill Catch Basins shall be required for *all stream crossings*. The final designs for the Hazardous Spill Catch Basins shall be submitted to the North Carolina Division of Water Quality 401 Wetlands Unit prior to beginning construction in the Water Supply watershed. As-built drawings for the basins shall be submitted to the North Carolina Division of Water Quality 401 Wetlands Units no later than 30 days after the construction is completed.
8. The bridge(s) required for this project shall be designed according to *Best Management Practices for the Protection of Surface Waters* (NCDOT March 1997). Specifically, the bridge decking shall not discharge storm water directly into the receiving water.
9. Prior to any construction activities, the NCDOT shall submit a maintenance plan for all storm water management facilities and hazardous spill catch basins associated with the project. The NCDOT shall be required to implement the maintenance plan for the life of this road. Sediment and erosion control devices shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored after the Division of Land Resources has released the project.
10. Any bridge demolition work required by this project shall adhere to NCDOT's *Best Management Practices for Bridge Demolition and Removal*.
11. Live or fresh concrete shall not come into contact with waters of the state until the concrete has hardened.
12. There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this Certification. If this occurs, compensatory mitigation will be required since it is a direct impact from road construction activities.
13. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed to allow low flow passage of water and aquatic life unless it can be shown to DWQ that providing passage would be impractical. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ.
- ✱14. NCDOT shall mitigate for the loss of two water supply wells for the Town of Cameron by constructing a municipal supply well or wells capable of yielding a minimum of 70 gallons per

minute (gpm). The Utility Relocation Agreement was entered with the Town of Cameron on October 26, 1998.

15. **Mitigation:** Compensatory mitigation shall be the same as that approved by the US Army Corps of Engineers as long as the mitigation required equals a ratio of 1:1 restoration or creation of lost wetland acres as described in 15A NCAC 2H.0506 (h)(6). A report must be submitted to the NC Division of Water Quality that describes the final approved wetland and stream mitigation for this project within two (2) months of the issuance of the 404 permit issued by the Army Corps of Engineers.

- a. Wetland impacts of 41.5 acres include riverine wetlands. NCDOT will mitigate these impacts by providing the following:

- 4.8 acres of on-site restoration (1:1 ratio) in the floodplain of the Little River as described in Appendix C of the Application.

The monitoring plan shall be followed and reports shall be submitted to this Office after the first year and every other year afterwards for a total of five (5) years.

- 8.4 acres of on-site preservation as described in Appendix C of the Application.
- Sandhills Area Land Trust (SALT) Mitigation Site (a 327-acre site in Moore County) being offered in total to offset the remainder of wetland impacts (36.8 acres) associated with the project. This site includes a maximum of 49 acres of wetland restoration.

NCDOT shall place groundwater gauges on the site such that they will accurately measure the drainage effect of the existing ditches at the SALT site. Before the additional monitoring and re-modeling of the groundwater table of the SALT Site occurs, NCDOT shall meet with DWQ personnel to agree upon the details of additional studies. If the resulting hydrological modeling demonstrates that less than 36.8 acres can actually be restored, NCDOT shall obtain wetland mitigation through in-lieu payments to Wetlands Restoration Program (WRP).

- b. Stream impacts total 4,880 linear feet in the Cape Fear River Basin (Hydrologic Unit 03030004). NCDOT proposes to provide compensatory mitigation at a 2:1 ratio except where on-site mitigation will be provided. The on-site mitigation sites will be mitigated at a 1:1 ratio as detailed in Table 4, Appendix A of the February 19, 2001 Application. Compensatory mitigation consists of the following:

- 1,154 linear feet of on-site stream relocation/restoration, with 50-foot buffers, using *natural channel design*. The natural channel design specifications shall be calculated from field measurements of an unimpacted section of stream (reference reach). The plans must include reference reach data including a sketch map, the range of values (pattern data), and all calculations (including the determination of bankfull). The channel design should include a floodplain terrace at stream bankfull.

The stream relocation shall be built and maintained according to approved plans before any mitigation credit is given. If this Office determines that the stream restoration or associated riparian area has become unstable, the stream shall be repaired or stabilized using only natural channel design techniques if possible. Additionally, the vegetation in the riparian shall be maintained and/or replaced according to the approved plans. Rip-rap and other hard structures may *only* be used if required by the Division of Land Resources or a Delegated Local Program. Additionally, all repair designs must be submitted to and receive written approval from this Office before the repair work is performed.

Since the restored stream is proposed as compensatory mitigation for stream impacts, the restored portion and associated riparian area shall be preserved in perpetuity through a preservation easement or some other legally binding mechanism or agreement. The above easement or other legally binding mechanism or agreement must be in place before any mitigation credit shall be given. Additionally, the stream physical and biological monitoring plan shall be followed and reports shall be submitted to this Office after the first year and every other year afterwards for a total of five (5) years.

- The remaining 8,068 linear feet of stream mitigation shall be provided via in-lieu payments to Wetlands Restoration Program as agreed on April 1, 1999.

In accordance with 15A NCAC 2R.0500, this contribution will satisfy our compensatory mitigation requirements under 15A NCAC 2H.0506(h). Until plans are received and approved for the stream relocation using natural channel design, wetland or stream fill shall not occur.

16. Upon completion of the project, the NCDOT shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the Division of Water Quality upon completion of the project.

17. The Applicant shall require its contractors (and/or agents) to comply with all of the terms of this Certification, and shall provide each of its contractors (and/or agents) a copy of this Certification.

Violations of any condition herein set forth shall result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal Permit.

If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This certification and its conditions are final and binding unless you ask for a hearing.

This the 19th day of July 2002

DIVISION OF WATER QUALITY



Alan W. Klimek, P.E.

SPECIAL CONDITIONS (Action ID. 1993-0-0570; NCDOT/TIP R-210)

1. All work authorized by this permit must be prepared in strict compliance with the attached plans, which are a part of this permit.
2. Stream Relocation Requirements:
 - a. The permittee will relocate 1154 linear feet of stream at the following locations:
 - i. The permittee shall mitigate for 174 linear feet of unavoidable impacts to an unnamed tributary to the Little River (Section A, Impact Site #10), an important stream channel, by completing 174 linear feet of onsite stream relocation, as described in the permit application
 - ii. The permittee shall mitigate for 980 linear feet of unavoidable impacts to an unnamed tributary to Little Crane Creek (Section C, Impact Site #4), an important stream channel, by completing 980 linear feet of onsite stream relocation, as described in the permit application.
 - b. The relocations will be performed subject to the following conditions.
 - i. The stream relocation shall be constructed in accordance with the North Carolina Wildlife Resources Commission's (NCWRC) "Stream Relocation Guidelines", and with the attached permit drawings. NCDOT shall consult with NCWRC on all stream relocations and implement all practicable recommendations in the design of specific site requirements for re-establishment of bank vegetation, and placement of meanders and habitat structures. Vegetation shall be used to the maximum extent practicable to stabilize banks, and riprap and other man-made structural measures shall be minimized.
 - ii. The permittee shall construct all channel relocations in a dry work area. The permittee shall stabilize the relocated channel before stream flows are directed into the new channel. Stream flows shall not be released into the new channel until approved by the Corps of Engineers, Wilmington District. Whenever possible, channel relocations shall be allowed to stabilize for an entire growing season. Upon completion of the project, an as-built channel survey shall be conducted. It is recommended that stream surveys, for both project construction and project monitoring, follow the methodology contained in the USDA Forest Service Manual, *Stream Channel Reference Sites* (Harrelson, et.al, 1994). The survey shall document the dimension, pattern and profile of the relocated channel.
 - iii. The permittee shall identify a stable reference reach that is close to the proposed relocation site and will not be impacted by the proposed highway construction. The applicant will coordinate a field meeting with the Corps of Engineers

to approve the reference reach selection prior to channel design and relocation of the existing stream. Baseline data on the reference reach channel dimension, pattern, and profile shall be collected and used as a blueprint for the relocation channel design. A detailed design plan of the relocation stream shall be submitted to this office for review prior to construction, including clearing activities.

iv. Vegetation used to stabilize banks shall be limited to native woody species, and will include establishment of a 50 foot wide vegetated buffer on the relocated channel. Stream banks will be planted with native vegetation that represents both woody (trees and shrubs) and herbaceous species. Species selection will be based on a survey of the vegetation from the approved reference reach. Survival of woody species planted at the stream mitigation sites must be at least 320 trees/acre through year three. A ten percent mortality rate will be accepted in year four (288 trees/acre) and another ten percent in year five, resulting in a required survival rate of 260 trees/acre through year five.

v. The permittee shall monitor the stream relocation site for a period of five years starting the year following construction. Monitoring data at the site should include the following: reference photos, plant survival and channel stability. Data shall be collected each year for 5 years at the same time of year. No less than two (2) bankfull flow events must be documented through the required 5-year monitoring period. If less than 2 bankfull events occur during the first 5 years, monitoring will continue until the second bankfull event is documented. The bankfull events must occur during separate monitoring years.

vi. If within any monitoring year, bank or stream stability is not acceptable as determined by the Corps of Engineers, and remedial action required by the Corps of Engineers is performed, the five-year monitoring period of the affected portions of the stream will start again at monitor year one. The permittee will coordinate all remedial activities with the Corps of Engineers, Wilmington District, prior to taking any remedial action. The permittee will submit a brief written report with representative photographs within 90 days after the monitoring year is completed.

vii. The permittee shall provide the Corps of Engineers, Wilmington District with a stream mitigation construction sequencing schedule within 30 days following the project preconstruction meeting. The plan, shall at a minimum, indicate a date of start of construction at the relocation site, grading schedule, planting schedule, completion of construction, monitoring schedule, and a date of potential diversion into the new channel. All stream mitigation construction must be completed within one year from the date of issuance of this permit.

viii. The permittee and/or current and subsequent property owners shall maintain the mitigation site in its natural condition, as altered by work in the mitigation plan, in perpetuity. Prohibited activities within the mitigation site specifically include, but are not limited to: the construction or placement of roads, walkways, buildings, signs, or structures of any kind (i.e., billboards, interior fences, etc.); filling, grading,

excavation, leveling, or any other earth moving activity or activity that may alter the drainage patterns on the property; the cutting, mowing, destruction, removal, or other damage of any vegetation; disposal or storage of any debris, trash, garbage, or other waste material; except as may be authorized by the mitigation plans, or subsequent modifications that are approved by the Corps of Engineers. In addition, the permittee shall take no action, whether on or off the mitigation property, which will adversely impact the wetlands or streams on the mitigation property, except as specifically authorized by this permit, or subsequent modifications that are approved by the Corps of Engineers, Wilmington District.

ix. Condition 2.b.viii, above, runs with the land. The permittee shall not sell, lease, or otherwise convey any interest in the mitigation property without subjecting the property to legally enforceable restrictions on the use of the property, to ensure its preservation in perpetuity. The instrument utilized to meet this condition must be approved in writing by the Wilmington District Corps of Engineers before execution.

3. The permittee shall mitigate for 3726 linear feet of unavoidable impacts to important stream channel associated with this project by payment to the North Carolina Wetlands Restoration Program (NCWRP) in an amount determined by the NCWRP sufficient to perform 7452 linear feet of warm water stream mitigation, or the equivalent water quality improvement projects, as approved by the Corps of Engineers, in the Cape Fear River basin (Cataloging Unit 03030004). Construction within streams on the permitted highway project shall begin only after the permittee has made full payment to the NCWRP, and the NCWRP has made written confirmation to the District Engineer, that it agrees to accept responsibility for the mitigation work required, pursuant to Paragraph IV.D. of the Memorandum of Understanding between the North Carolina Department of Environment and Natural Resources and the U.S. Army Corps of Engineers, Wilmington District, dated November 4, 1998.

4. The permittee shall mitigate for 4.7 acres of unavoidable impacts to High Quality riverine wetlands at the Little River (Section A, Impact Site #1) by providing 4.7 acres of on-site restoration and 8.4 acres of on-site preservation as identified in the Little River On-site Restoration Plan, dated February 2001. In addition, the following stipulations shall apply to this mitigation site:

a. The permittee shall identify a reference site that is adjacent to the proposed restoration site and will not be impacted by the proposed highway construction. The applicant will coordinate a field meeting with the Corps of Engineers to approve the reference site selection prior to mitigation design and restoration of the mitigation site. Baseline data on the reference site hydrology, surface elevations, and vegetation shall be collected and used as a blueprint for the wetland restoration design. A detailed design plan of the wetland restoration shall be submitted to this office for review prior to construction, including clearing activities, at this site (Section A, Impact Site #1).

b. To meet the success criteria, the monitoring data must show that for each normal precipitation year within the monitoring period, the site exhibits saturation within the upper 12 inches of the soil surface for a minimum of 12.5% or 29 days, or greater consecutive day duration during the growing season and inundation must occur 5 out of 10 years or 50% of the years monitored, at a minimum frequency. Baseline hydrologic data shall be obtained from the reference site, which can be used to support the mitigation site's hydrology success. WETS tables for Moore County will be utilized as appropriate to determine normal precipitation years.

c. If there are no normal precipitation years during the first five years of monitoring, to meet performance criteria, the permittee will continue to monitor hydrology on the site until it shows that the site has been inundated or saturated as described above during a normal precipitation year.

d. The mitigation site shall be suitably graded to promote the establishment of planted wetland vegetation, generally to the adjacent wetland reference site elevations. If mineral soil is exposed at the desired restoration grade, the site should be graded to at least minus one-foot and brought back to grade by providing at least one foot of wetland topsoil. If organic soil is exposed at the desired restoration grade, the soil should be disked or suitability prepared for planting. Every effort must be made to utilize the topsoil from the impacted wetlands on this project to promote wetland re-vegetation.

e. The mitigation site will be planted with native vegetation that represents both woody (trees and shrubs) and herbaceous species. Species selection will be based on a survey of the vegetation from the approved reference site. Survival of woody species planted at the mitigation site must be at least 320 trees/acre through year three. A ten percent mortality rate will be accepted in year four (288 trees/acre) and another ten percent in year five resulting in a required survival rate of 260 trees/acre through year five.

f. Vegetation monitoring must begin in the spring just after leaf-out. Permanent randomly located sample plots shall be established at the mitigation site. Plot size should be based on established standards for sampling vegetation planted at the target densities, usually 0.1 acre. The number of plots shall be established by providing combined sample coverage of 2% of the mitigation site, or for small sites less than 15 acres in size, a minimum of three plots shall be established. The planted tree stock shall be marked by use of tree marking paint and/or tree tags for identification and sampling. Plants that have colonized the sample plot shall be identified and noted in the monitoring report but not used in the planted vegetation monitoring calculations. Plant recruitment shall be calculated as a separate item and corrective measures may need to be taken if the volunteers are undesirable or are jeopardizing the survival of the planted stock. The measurement of planted stock survival using stem density will be acceptable provided that only planted stock is counted. In addition, in order to measure health and vigor of the planted stock, height measurements of the plants in each plot shall be taken, compared and provided in the yearly monitoring report. General observations of lateral plant growth, leaf and bud development should also be annotated in the reports.

g. Continually recording monitoring wells, surface gauges and/or piezometers shall be developed in the reference site and restoration site and be of sufficient numbers and adequately spaced to measure the extent, frequency and duration of the site inundation/saturation. This will aid in quickly identifying problem areas for remediation and determine the hydrologic success of the mitigation effort. The permittee must comply with USACE WRP Technical Note HY-IA3.1 for installation and development of the monitor wells and/or piezometers. Monitor wells shall be visited frequently to avoid lengthy down time of non-functioning wells and maintenance shall be scheduled in such a way as to minimize any down time for repairs or replacement. Lengthy down time of wells during the growing season may result in the extension of the monitoring period in order to fill in gaps in the data.

h. The permittee and/or current and subsequent property owners shall maintain the mitigation site in its natural condition, as altered by work in the mitigation plan, in perpetuity. Prohibited activities within the mitigation site specifically include, but are not limited to: the construction or placement of roads, walkways, buildings, signs, or structures of any kind (i.e., billboards, interior fences, etc.); filling, grading, excavation, leveling, or any other earth moving activity or activity that may alter the drainage patterns on the property; the cutting, mowing, destruction, removal, or other damage of any vegetation; disposal or storage of any debris, trash, garbage, or other waste material; except as may be authorized by the mitigation plan, or subsequent modifications that are approved by the Corps of Engineers, Wilmington District. In addition, the permittee shall take no action, whether on or off the mitigation property, which will adversely impact the wetlands or streams on the mitigation property, except as specifically authorized by this permit, or subsequent modifications that are approved by the Corps of Engineers, Wilmington District.

i. Condition 4.h., above, runs with the land. The permittee shall not sell, lease, or otherwise convey any interest in the mitigation property without subjecting the property to legally enforceable restrictions on the use of the property, to ensure its preservation in perpetuity. The instrument utilized to meet this condition must be approved in writing by the Wilmington District Corps of Engineers before execution.

5. The permittee shall mitigate for 36.8 acres of unavoidable impacts to riverine wetlands associated with this project by restoring, at a minimum, 36.8 acres of wetlands, preserving 176 acres of wetlands, and preserving 102 acres of uplands at the 327-acre Sandhills Area Land Trust (SALT) Mitigation Site as described in the report entitled "Wetland Mitigation Plan – SALT Mitigation Site" dated August 16, 2000. In addition, the following stipulations shall apply to this mitigation site:

a. To meet the success criteria, the monitoring data must show that for each normal precipitation year within the monitoring period, the site exhibits saturation within the upper 12 inches of the soil surface for a minimum of 12.5% or 29 days, or greater consecutive day duration during the growing season and inundation must occur 5 out of 10 years or 50% of the years monitored, at a minimum frequency. Baseline hydrologic

data shall be obtained from the reference site, which can be used to support the mitigation site's hydrology success. WETS tables for Moore County will be utilized as appropriate to determine normal precipitation years.

b. The mitigation site will be planted with native vegetation that represents both woody (trees and shrubs) and herbaceous species. Species selection will be based on a survey of the vegetation from the reference sites. Survival of woody species planted at the mitigation site should be at least 320 trees/acre through year three. A ten percent mortality rate will be accepted in year four (288 trees/acre) and another ten percent in year five resulting in a required survival rate of 260 trees/acre through year five.

c. Vegetation monitoring must begin in the spring just after leaf-out. Permanent randomly located sample plots shall be established at the mitigation site. Plot size shall be based on established standards for sampling vegetation planted at the target densities, usually 0.1 acre. The number of plots shall be established by use of statistical methods used to identify adequate sample size and, at a minimum, provide combined sample coverage of 2% of the mitigation site. The planted tree stock shall be marked by use of tree marking paint and/or tree tags for identification and sampling. Plants that have colonized the sample plot should be identified and noted in the monitoring report but not used in the planted vegetation monitoring calculations. Plant recruitment should be calculated as a separate item and corrective measures may need to be taken if the volunteers are undesirable or are jeopardizing the survival of the planted stock. The measurement of planted stock survival using stem density will be acceptable provided that only planted stock is counted. In addition, in order to measure health and vigor of the planted stock, height measurements of the plants in each plot shall be taken, compared and provided in the yearly monitoring report. General observations of lateral plant growth, leaf and bud development should also be annotated in the reports.

d. Continually recording monitoring wells, surface gauges and/or piezometers shall be developed in the reference sites (four wells) and restoration site (eight wells) and be adequately spaced to measure the extent, frequency and duration of the site inundation/saturation. This will aid in quickly identifying problem areas for remediation and determine the hydrologic success of the mitigation effort. The permittee must comply with USACE WRP Technical Note HY-IA3.1 for installation and development of the monitor wells and/or piezometers. Monitor wells shall be visited frequently to avoid lengthy down time of non-functioning wells and maintenance shall be scheduled in such a way as to minimize any down time for repairs or replacement. Lengthy down time of wells during the growing season may result in the extension of the monitoring period in order to fill in gaps in the data.

e. A detailed design plan of the wetland restoration site shall be submitted to this office for review prior to any construction, including clearing activities in the project's permitted areas.

f. No improvements shall be initiated on the logging road that bisects the SALT Mitigation Site. This includes changing the existing grade, maintenance grading,

widening, and/or paving. Stabilization of the road embankments to prevent erosion shall be accomplished by re-vegetation measures only. No structural armoring shall be initiated.

g. Except as described in the mitigation plan, no activities shall be initiated, conducted or allowed on the SALT Mitigation Site that may disturb, impair, alter, and/or modify the hydrology, vegetation and/or hydric soils of any of the existing wetland areas, including any restored wetlands. Periodic controlled burning will be allowed provided no fire brakes are placed in any wetlands and the prescribed burn is in accordance with a NC Forest Service authorized burning plan.

h. No amendments to the existing Conservation Easement dated July 13, 1998 and recorded in Deed Book 1400 at Page 329 shall be undertaken without prior written approval by the Corps of Engineers, Wilmington District.

i. Permittee may not transfer its conservation easement in the SALT mitigation property without the prior approval of the Corps of Engineers.

j. No trails or interpretive exhibits shall be constructed on the SALT Mitigation property subject to the Conservation Easement without the written approval of the Corps of Engineers, Wilmington District.

k. The permittee shall enforce the terms of the conservation easement in the mitigation property recorded in Book 1400, Page 329 of the Moore County Registry.

6. When final design plans are completed for TIP R-210, any necessary permit modification requests shall be submitted to the Corps of Engineers and the North Carolina Division of Water Quality (NCDWQ). If necessary, a public notice describing the modifications and any additional impacts associated with the modifications will be circulated for public review and comment. Final design plans shall reflect all appropriate avoidance and minimization measures taken to lessen the project impacts on aquatic resources. The permittee shall submit a compensatory mitigation plan for proposed additional impacts within streams and wetlands associated with the proposed modifications. Construction within streams and wetlands on TIP R-210 shall begin only after approval by the Corps of Engineers of the modified impacts.

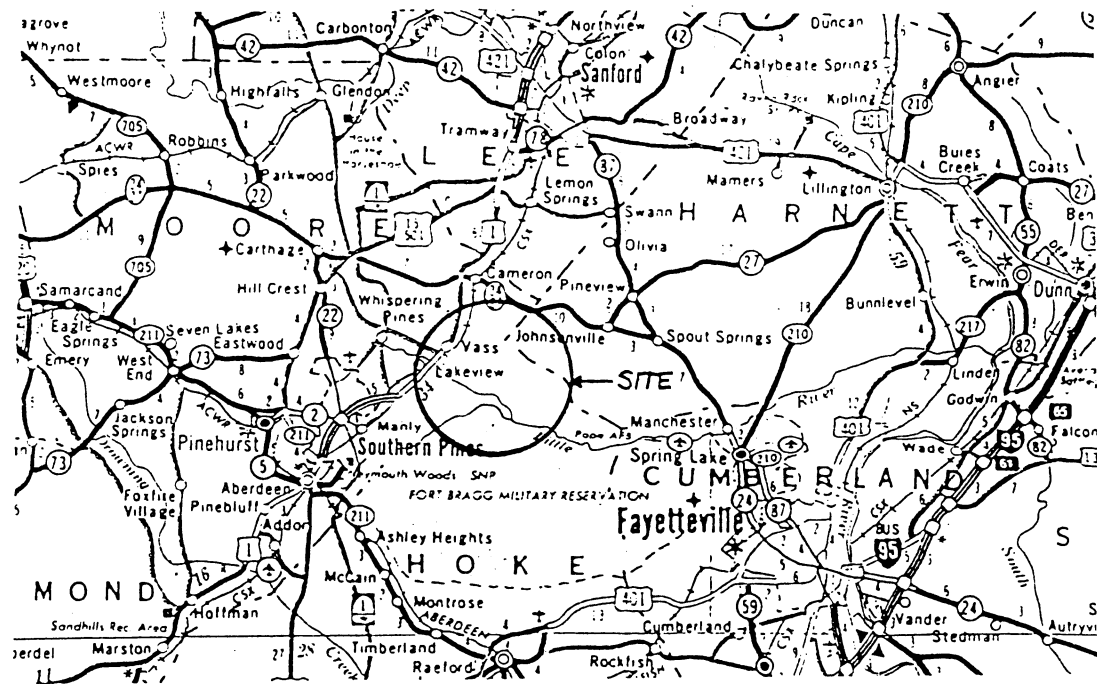
7. Prior to commencing construction within jurisdictional waters of the United States for any portion of the proposed highway project, the permittee shall forward the latest version of project construction drawings to the Corps of Engineers, Wilmington Regulatory Field Office NCDOT Regulatory Project Manager. Half-size drawings will be acceptable.

8. The permittee shall schedule a meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Wilmington Regulatory Field Office NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all of the terms and

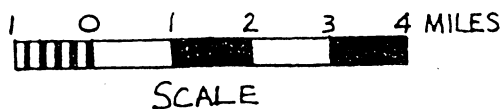
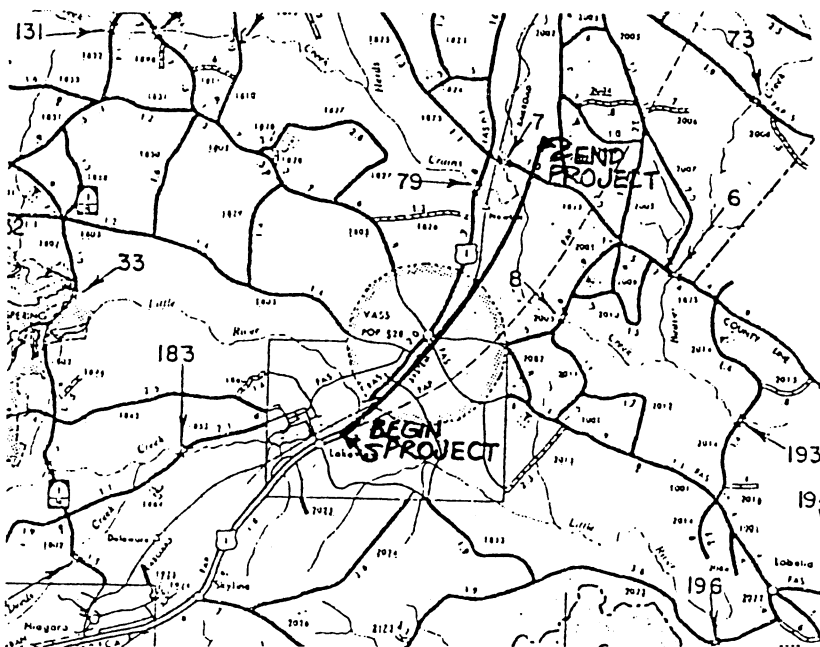
conditions contained within this Department of the Army Permit. The permittee shall notify the Corps of Engineers Project Manager a minimum of thirty (30) days in advance of the scheduled meetings in order to provide that individual with ample opportunity to schedule and participate in the required meetings.

9. The permittee and its contractors and/or agents shall not excavate, fill, or perform mechanized land clearing at any time in the construction or maintenance of this project within waters and/or wetlands, except as authorized by this permit, or any modification to this permit. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and fill activities connected with this project.
10. To ensure that all borrow and waste activities occur on high ground, except as authorized by this permit, the permittee shall require its contractors and/or agents to identify all areas to be used for borrow material, or to dispose of dredged, fill, or waste material. The permittee shall ensure that all such areas comply with the preceding condition (6) of this permit, and shall require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This information will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with the preceding condition (6). All information will be available to the Corps of Engineers upon request.
11. The permittee shall comply with the conditions specified in the water quality certification, No. 3344, issued by the North Carolina Division of Water Quality on July 19, 2002.
12. In compliance with NHPA, Section 106, the permittee shall comply with all stipulations identified in the Memorandum of Agreement (MOA) between Federal Highway Administration, Advisory Council on Historic Preservation and the NC Historic Preservation Officer (SHPO) on this project.
13. The permittee shall place the inverts of culverts and other structures in waters, streams, and wetlands one foot below the elevation of the streambed to allow low flow passage of water and aquatic life, unless providing passage would be impractical and the Corps of Engineers has waived this requirement. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to, upstream or downstream of the structures.
14. The permittee shall use appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" to assure compliance with the appropriate turbidity water quality standard (50 NTU's in all streams and rivers, and 25 NTU's in all lakes).

15. The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, prior to project completion.
16. The permittee shall take measures to prevent live or fresh concrete from coming into contact with any surface waters until the concrete has hardened.
17. If the permittee discovers any previously unknown historic or archeological remains while accomplishing the authorized work, he shall immediately stop work and notify the Wilmington District Engineer who will initiate the required State/Federal coordination.
18. No excavated or fill material shall be placed at any time in waters or wetlands outside the authorized permit area, nor will it be placed in any location or in any manner so as to impair surface water flow into or out of any wetland area.
19. The permittee shall maintain the authorized work in good condition and in conformance with the terms and conditions of this permit. The permittee is not relieved of this requirement if he abandons the permitted activity without transferring it to a third party.
20. All fill material shall be clean and free of any pollutants except in trace quantities. Metal products, organic materials, or unsightly debris will not be used.
21. This Department of the Army permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
22. In issuing this permit, the Federal Government does not assume any liability for:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future Federal activities initiated on behalf of the general public.
 - c. Damages to other permitted or un-permitted activities or structures caused by the authorized activity.
 - d. Design and construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.



VICINITY MAP



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

B.T560302

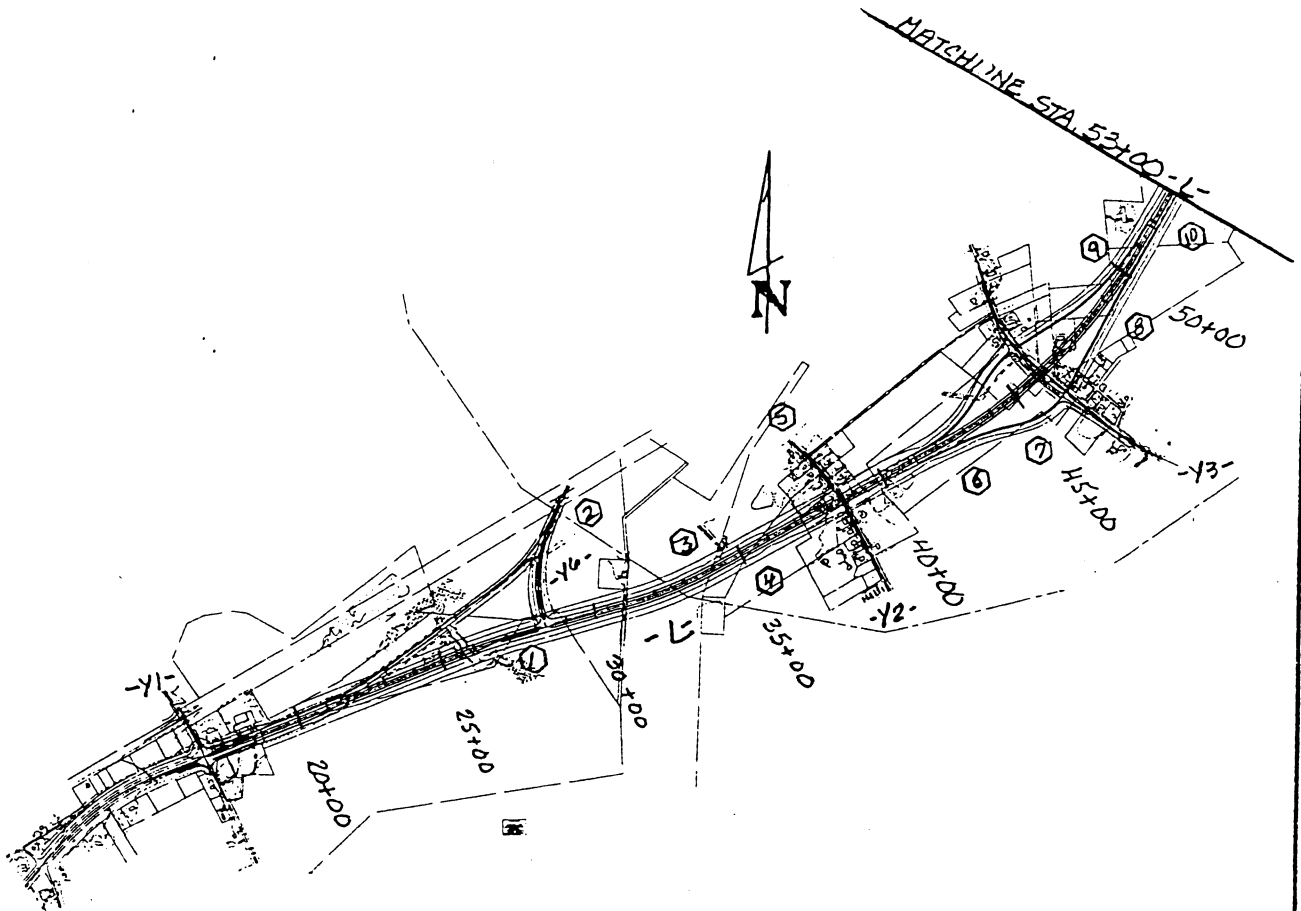
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

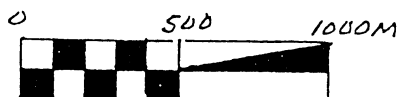
SHEET 1 OF 5

NOVEMBER 1997



SITE MAP

SCALE



1:25,000

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

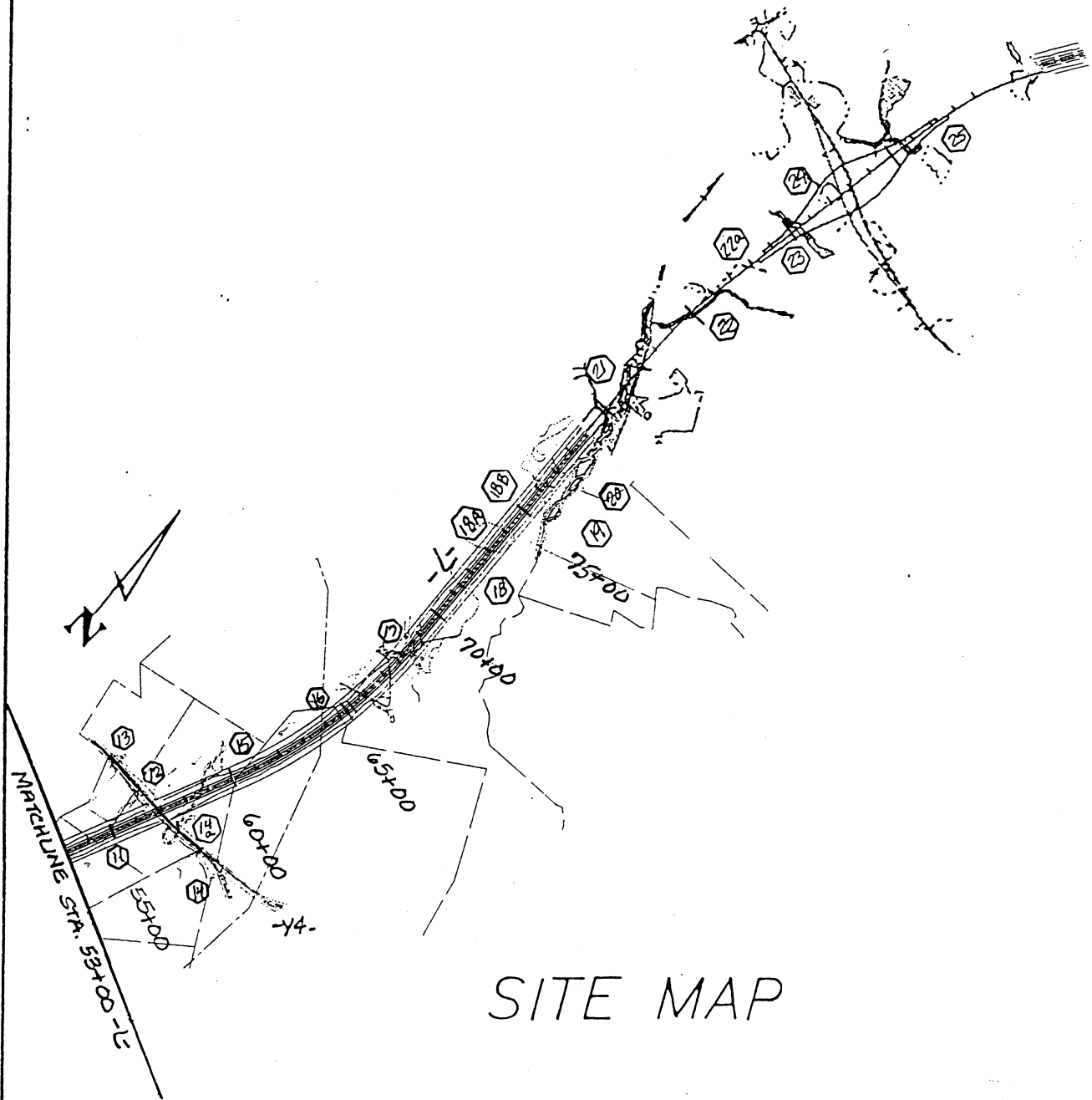
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
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SCALE AS SHOWN

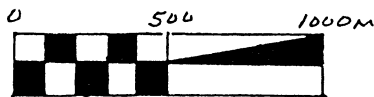
SHEET 2 OF 58

NOVEMBER 1997



SITE MAP

SCALE



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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

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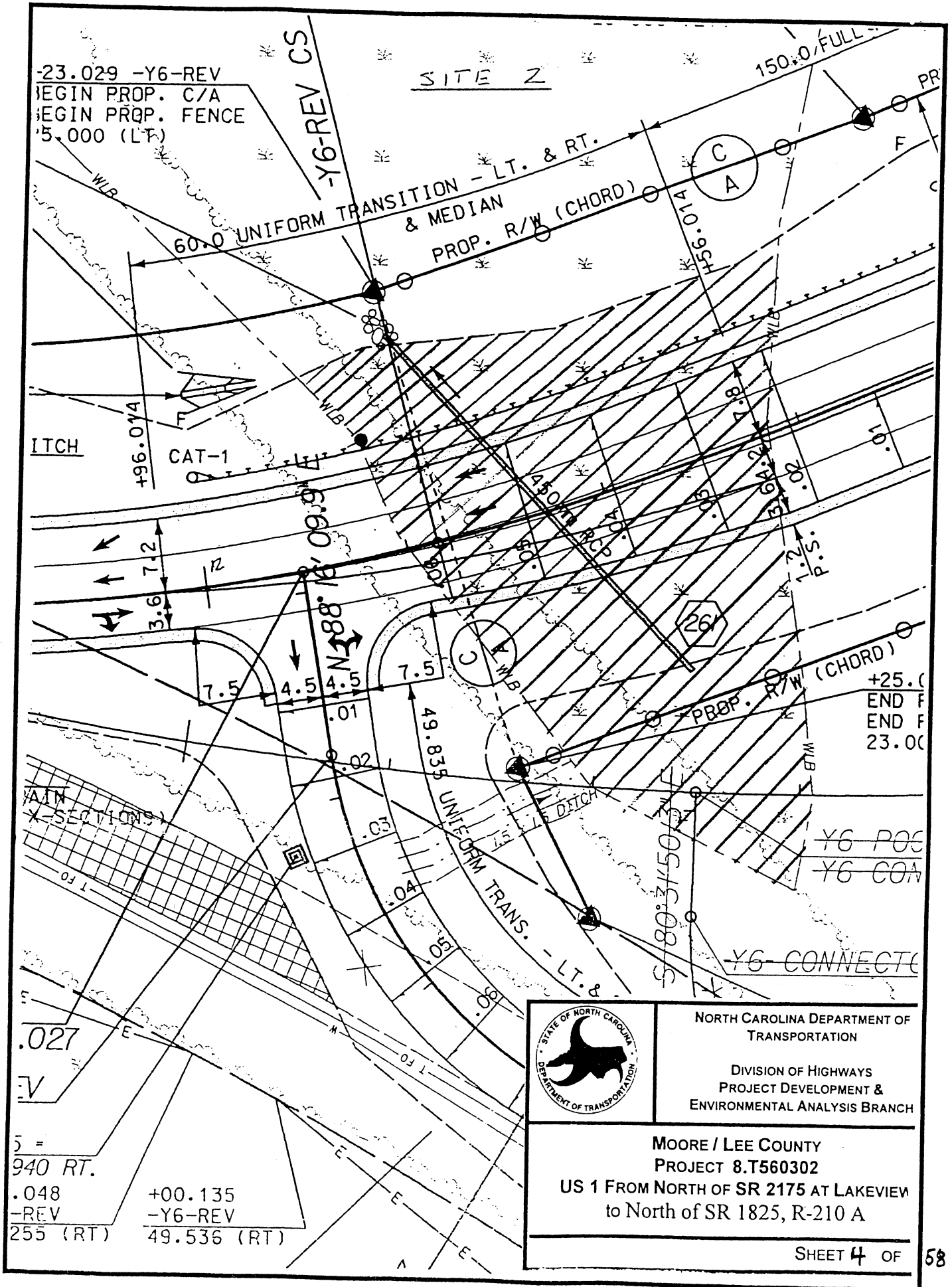
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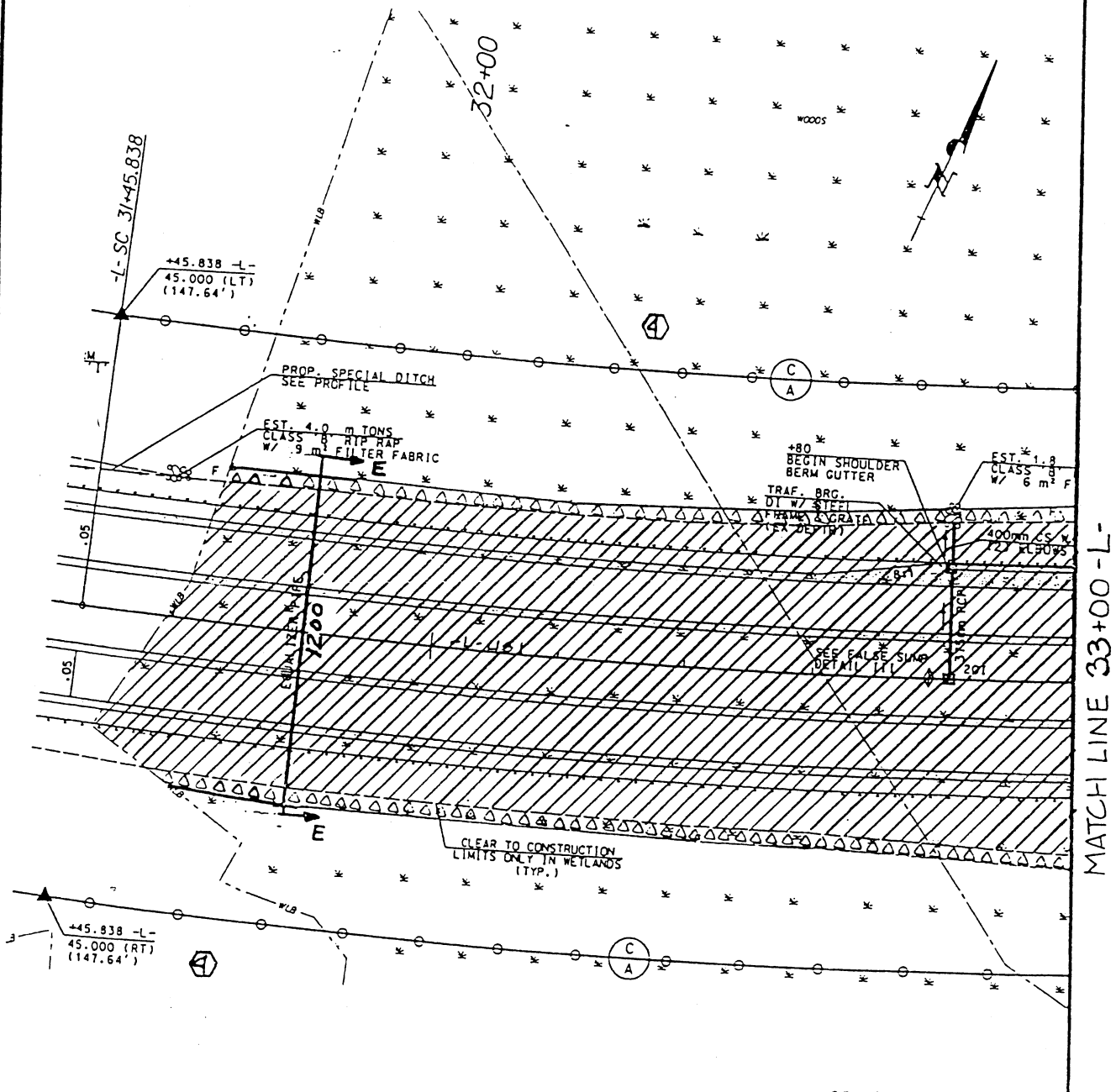
PROPOSED GRADING, PAVING, DRAINAGE, FENCING
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SCALE AS SHOWN

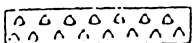
SHEET 3 OF 58

NOVEMBER 1997





SITE#3



DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS



DENOTES FILL IN WETLAND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

B.T560302

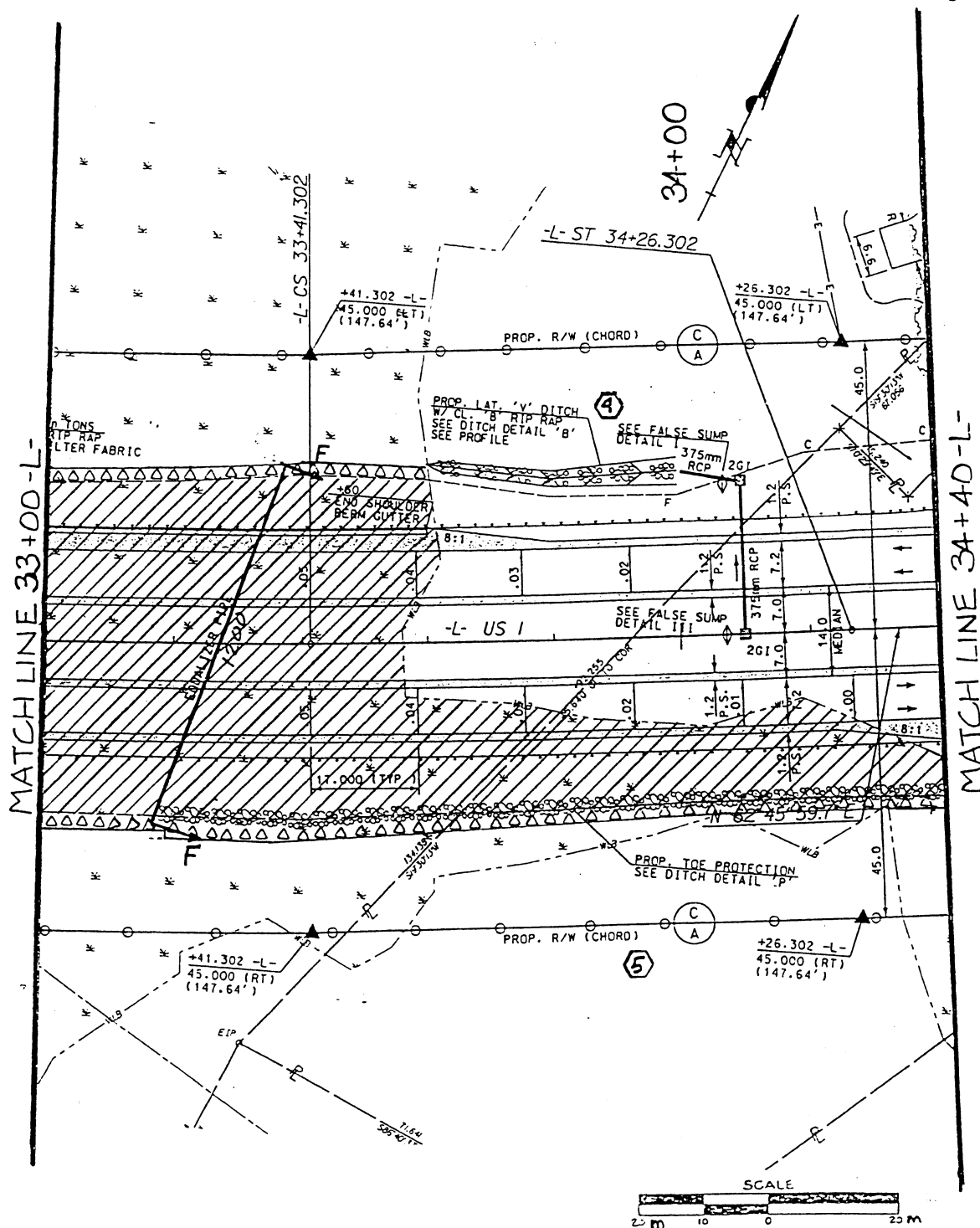
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

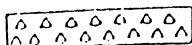
SCALE AS SHOWN

SHEET 5 OF 58

NOVEMBER 1997



SITE #3



DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS



DENOTES FILL IN WETLAND.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

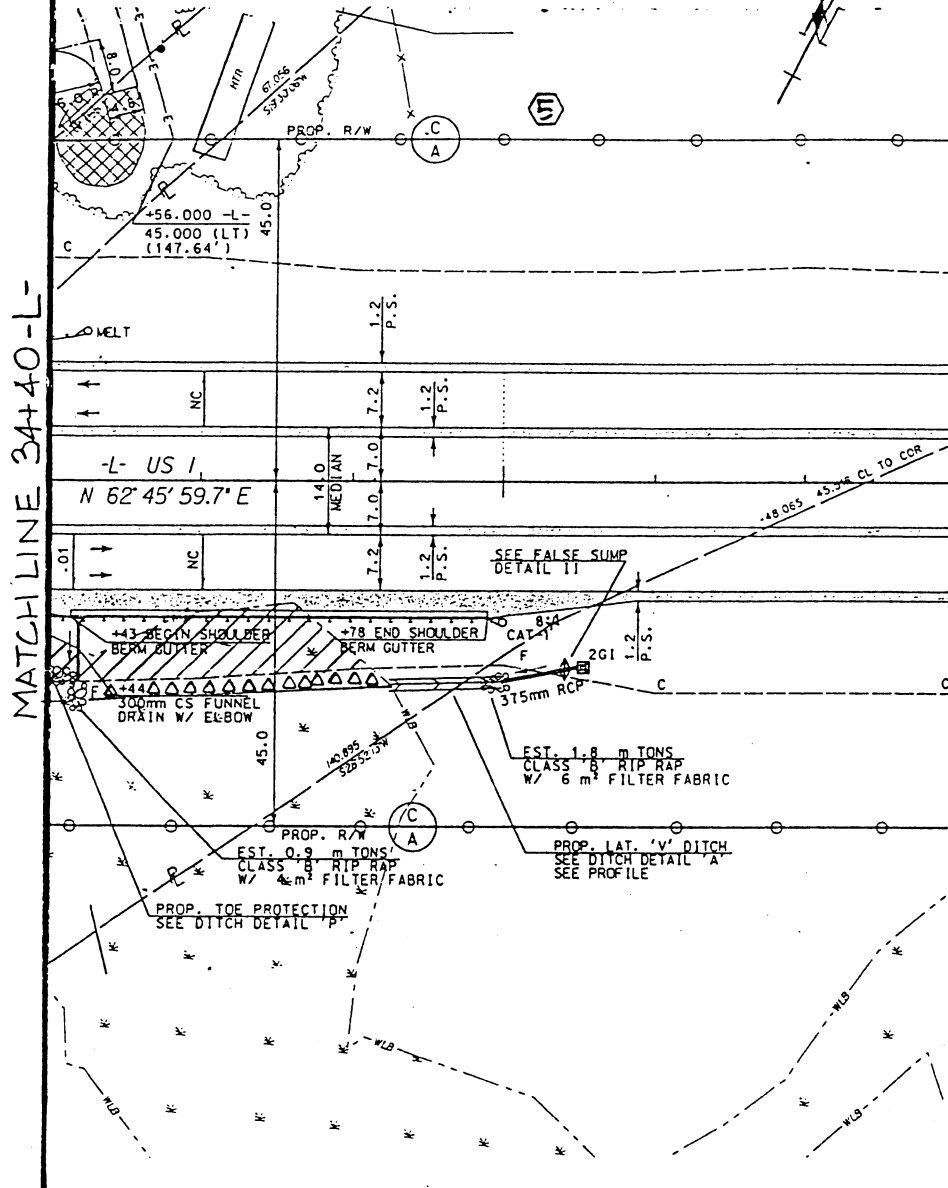
SCALE AS SHOWN

SHEET 6 OF 58

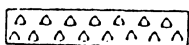
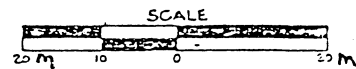
NOVEMBER 1997

35+00

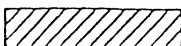
MATCH LINE 34+40-L-



SITE#3



DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS



DENOTES FILL IN WETLAND.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

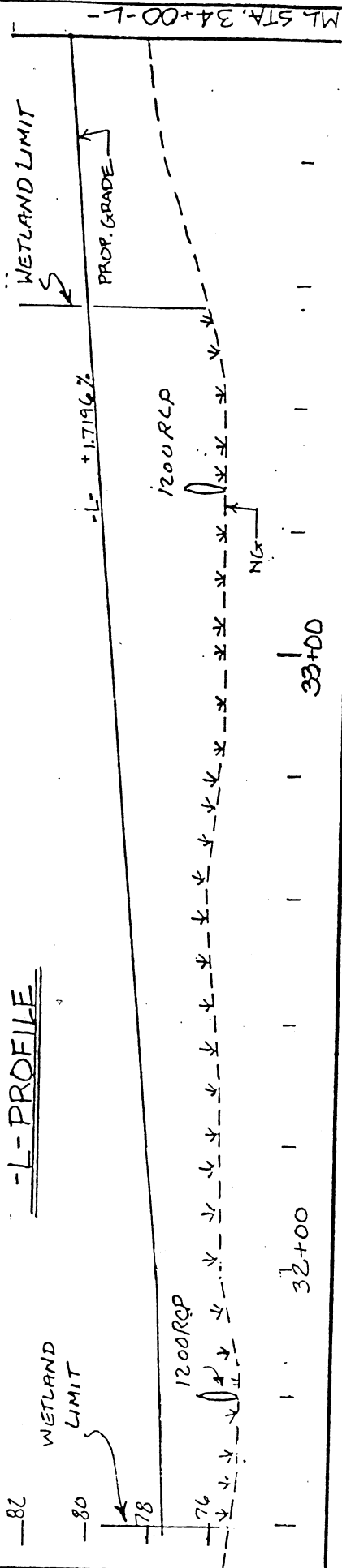
PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

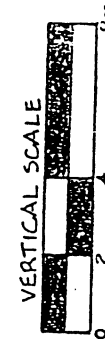
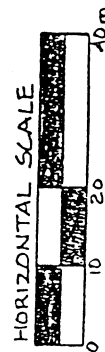
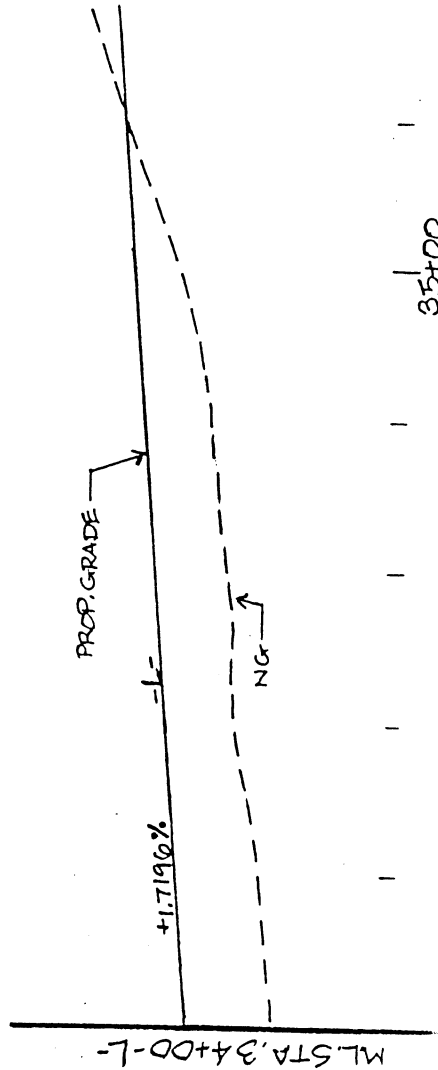
SHEET 7 OF 58

NOVEMBER 1997

-L-PROFILE



86
84
82
80
78



WETLAND LIMIT

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

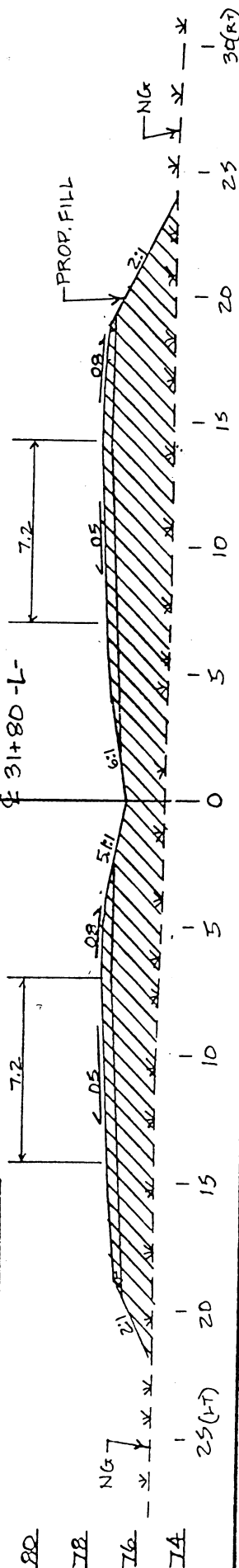
PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

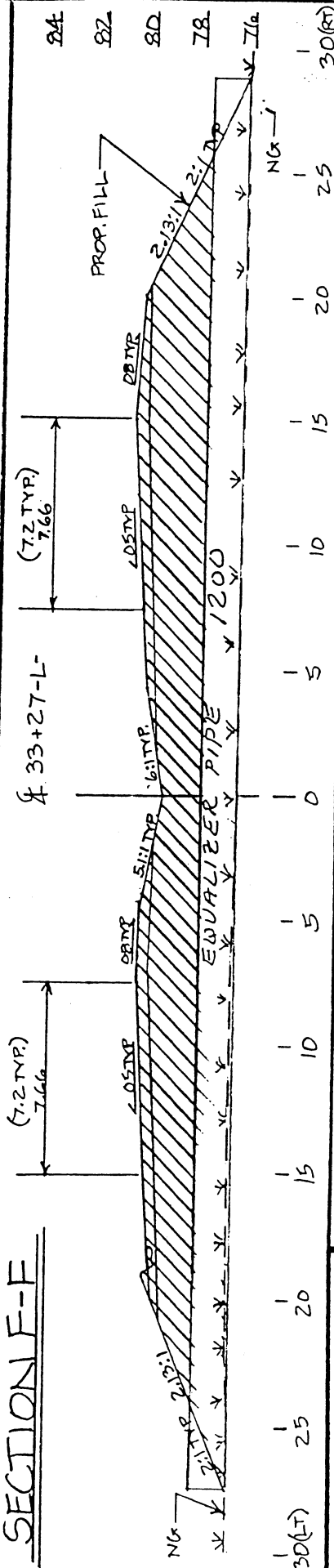
SHEET 8 OF 58

NOVEMBER 1997

SECTION E-E

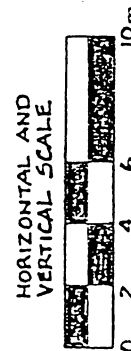


SECTION F-F



DENOTES WETLAND

DENOTES FILL IN WETLAND



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

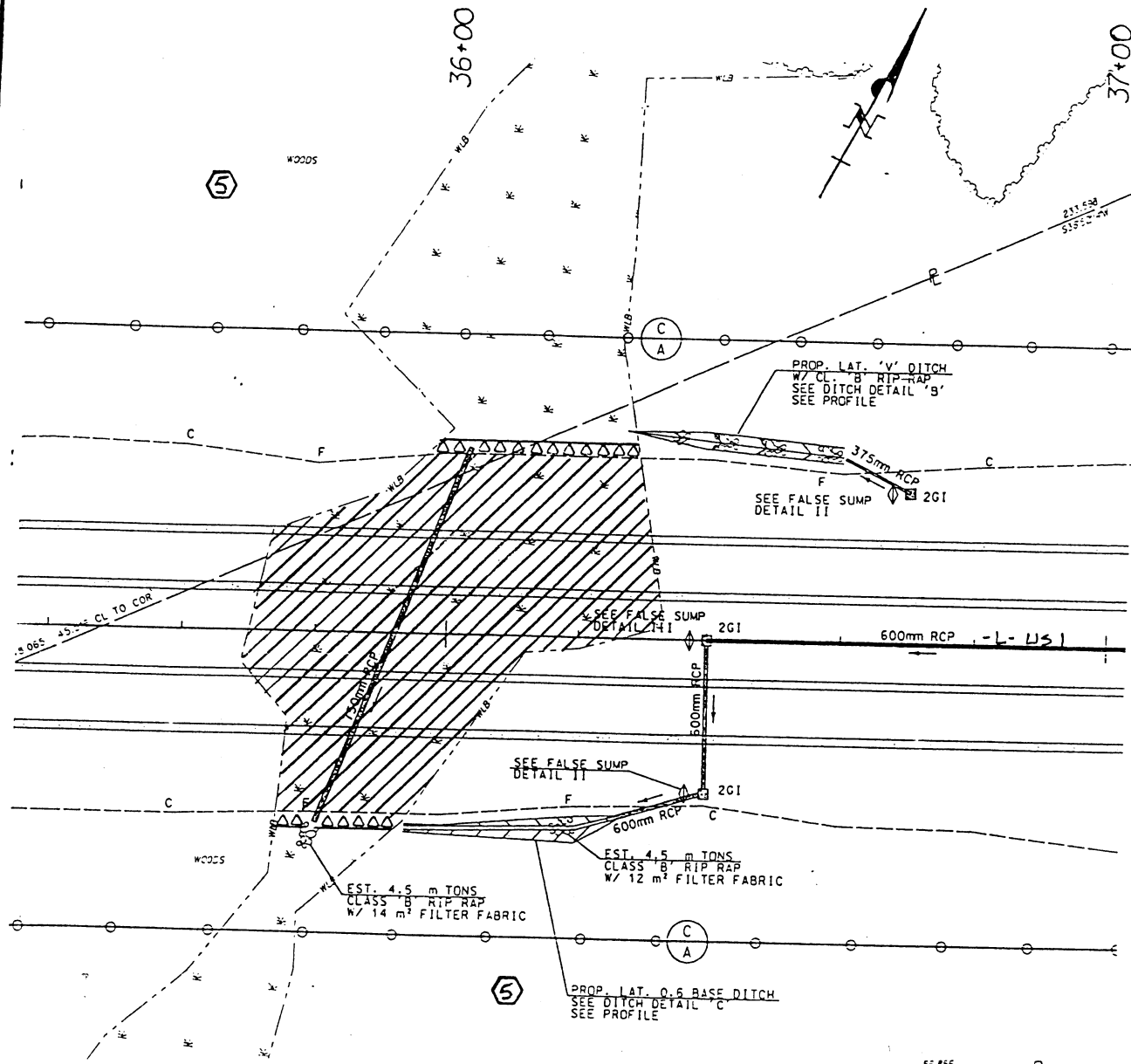
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
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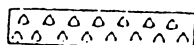
SCALE AS SHOWN

SHEET 9 OF 58

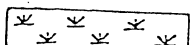
NOVEMBER 1997



SITE #4



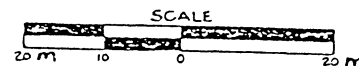
DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS



DENOTES WETLAND



DENOTES FILL IN WETLAND.



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

6.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 10 OF 58

NOVEMBER 1997

SITE 5

-Y2-BASELINE POT 5+00.000 =
-Y2-POS 10+72.996, 7.312 LT.

ARCHIE L. BLUE
DB 1115 PG 54

(57)

WOODS

+55.871 -Y2-
13.000 (LT)

+83.750 -Y2-
13.000 (LT)

+74.342 -Y2-
13.000 (LT)

EST. 10.0 m TONS
CLASS B RIP RAP
W/ 5 m² FILTER FABRIC
PROP. SPECIAL DITCH
SEE PROFILE

BLEND TO
EXIST.
LT. & RT.)

PROP. R/W

SLOPE STAKE LINE

9.500
(TYP.)

REMOVE

150mm PIPE

375mm CONC

JAMES ST

SR 1864

152 MM (6") WL

CONC DRIVE

375mm PIPE

900mm CONC

WALL

TO EIP

+80.868

09 CL TO EIP

14.4

270

JOHNSON ST

4.6 BST

9.144 (30')

EXIST. R/W

132.892

S52°10'11"W

63.873

S52°10'11"W

EXIST. R/W

10+73.871

DB

A'

WOODS

RIC

BASE

OUT

DETAIL 'DD'

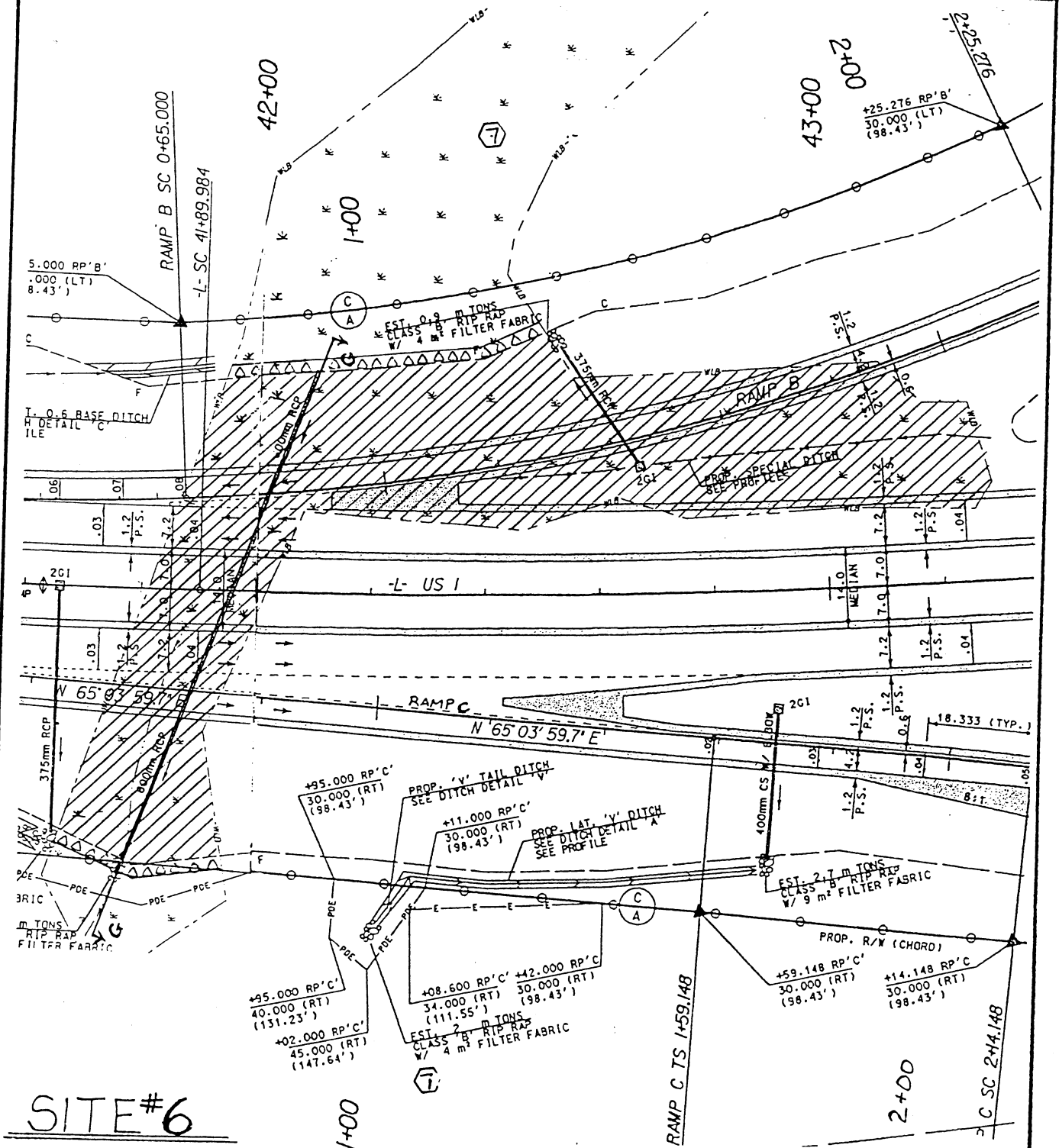


NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A

SHEET 11 OF 58



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

MOORE COUNTY

8.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET ~~10~~ OF 58

SHEET 12

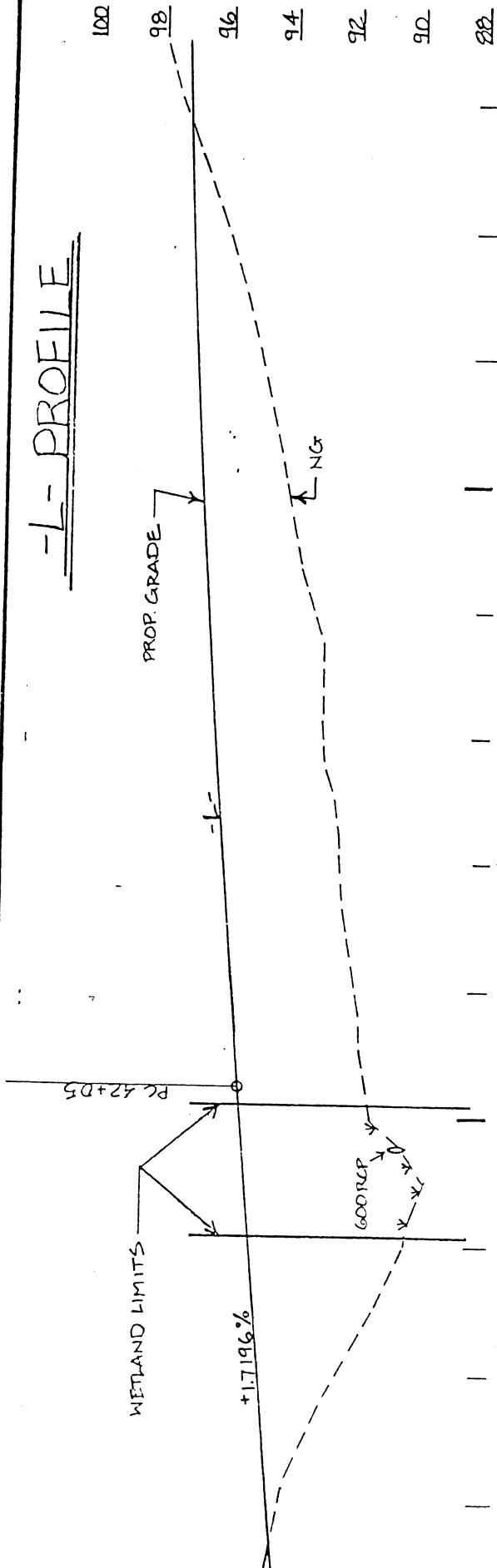
NOVEMBER 1997

SCALE AS SHOWN

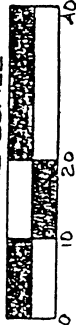
SHEET ~~10~~ OF 52

NOVEMBER 1997

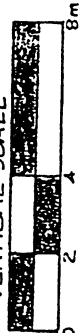
-L- PROFILE



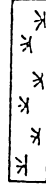
HORIZONTAL SCALE



VERTICAL SCALE



WETLAND LIMIT



+1.9400% Δ +0.5643%

98 PI STA. 0+46
ELEV. = 94.536
L = 70.000

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

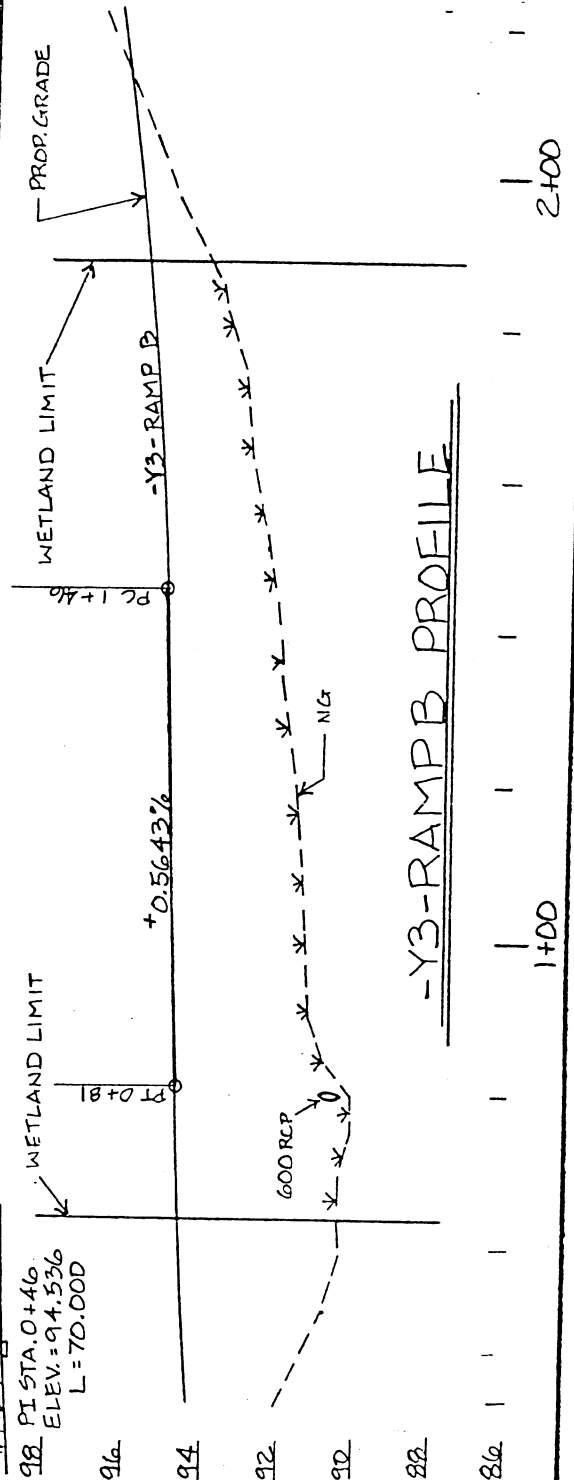
PROPOSED GRADING, PAVING, DRAINAGE, FENCING
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BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

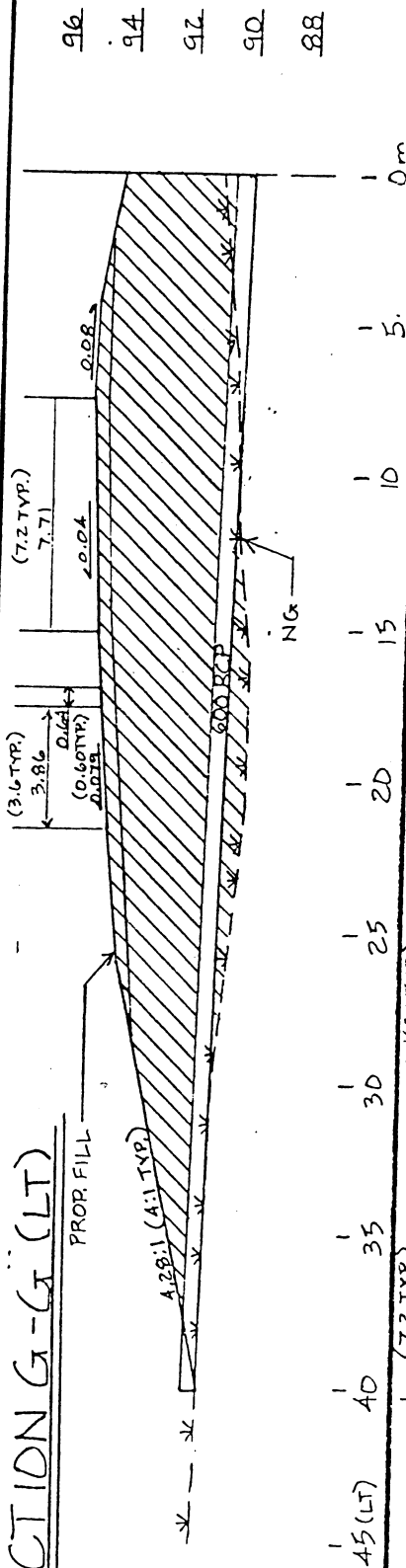
SHEET 13 OF 58

NOVEMBER 1997

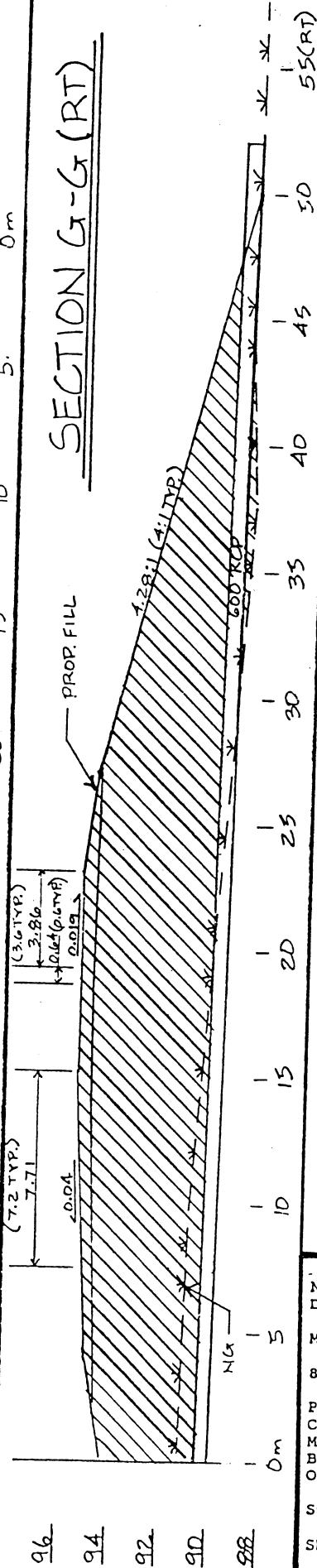
-Y3-RAMP B PROFILE



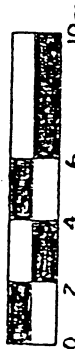
SECTION G-G (LT)



SECTION G-G (RT)



HORIZONTAL AND VERTICAL SCALE



DENOTES WETLAND

DENOTES FILL IN WETLAND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 14 OF 58

NOVEMBER 1997

SITE #6

SITE 7

45+00

-Y3-PO
BEGIN
-L-POC
-Y3-PO

PROP. SPECIAL DITCH
SEE PROFILE

PROP. DOUBLE
FACE GUIDERAIL

PROP. SPECIAL DITCH
SEE PROFILE

SEE FALSE SUMP
DETAIL III

2G1
(EX. DEPTH)

SEE FALSE SUMP
DETAIL II

2G1
(EX. DEPTH)

1.623 -
RT.

PROP. SPECIAL DITCH
SEE PROFILE

-L-BASELINE PINC 33+57.259 -
-L-POC 44+44.277, 25.075 RT.

-L-BASELINE PINC 34+62.911 -
-L-POC 45+48.224, 29.526 RT.

SLOPE STAKE LINE

GEORGE R. BLUE
DB 134 PG 29

EST. 3.6 M TONS
CLASS B RIP RAP
W/ 14 m² FILTER FABRIC

PROP. LAT. 'V' DITCH
W/ CL. 'B' RIP RAP
SEE DITCH DETAIL 'B'
SEE PROFILE

-Y3-P
RAMP
RAMP

2G1 W/
FLAT GRATE

400mm CSP W/
(2) ELBOWS

EST. 4.5 M TONS
CLASS B RIP RAP
W/ 14 m² FILTER FABRIC

EST. 4.5 M TONS
CLASS B RIP RAP
W/ 14 m² FILTER FABRIC

GEORGE R. BLUE
DB 163 PG 274

Sta 15+09.691
3' 08.4"
5.000
1.674
3.341

RAMP B

28	PIs Sta 2+46.956	PIs Sta 3+26.953	PI Sta 3+94.1
7' (LT)	$\theta = 4' 39" 19.0'$	$\theta = 4' 22" 36.3'$	$\Delta = 15' 33" 24.5'$
	Ls = 65.000	Ls = 55.000	L = 97.747
	ST = 21.680	ST = 18.344	T = 49.176
	LT = 43.348	LT = 36.678	R = 360.000
			So = 0.04
			D.S. = 80 km/h

12	PIs Sta 3+88.668	PI Sta 4+41.213
	$\theta = 4' 35" 01.2'$	$\Delta = 13' 53" 41.9' (LT)$
	Ls = 48.000	L = 72.754
	ST = 16.010	T = 36.556
	LT = 32.011	R = 300.000
		So = 0.04

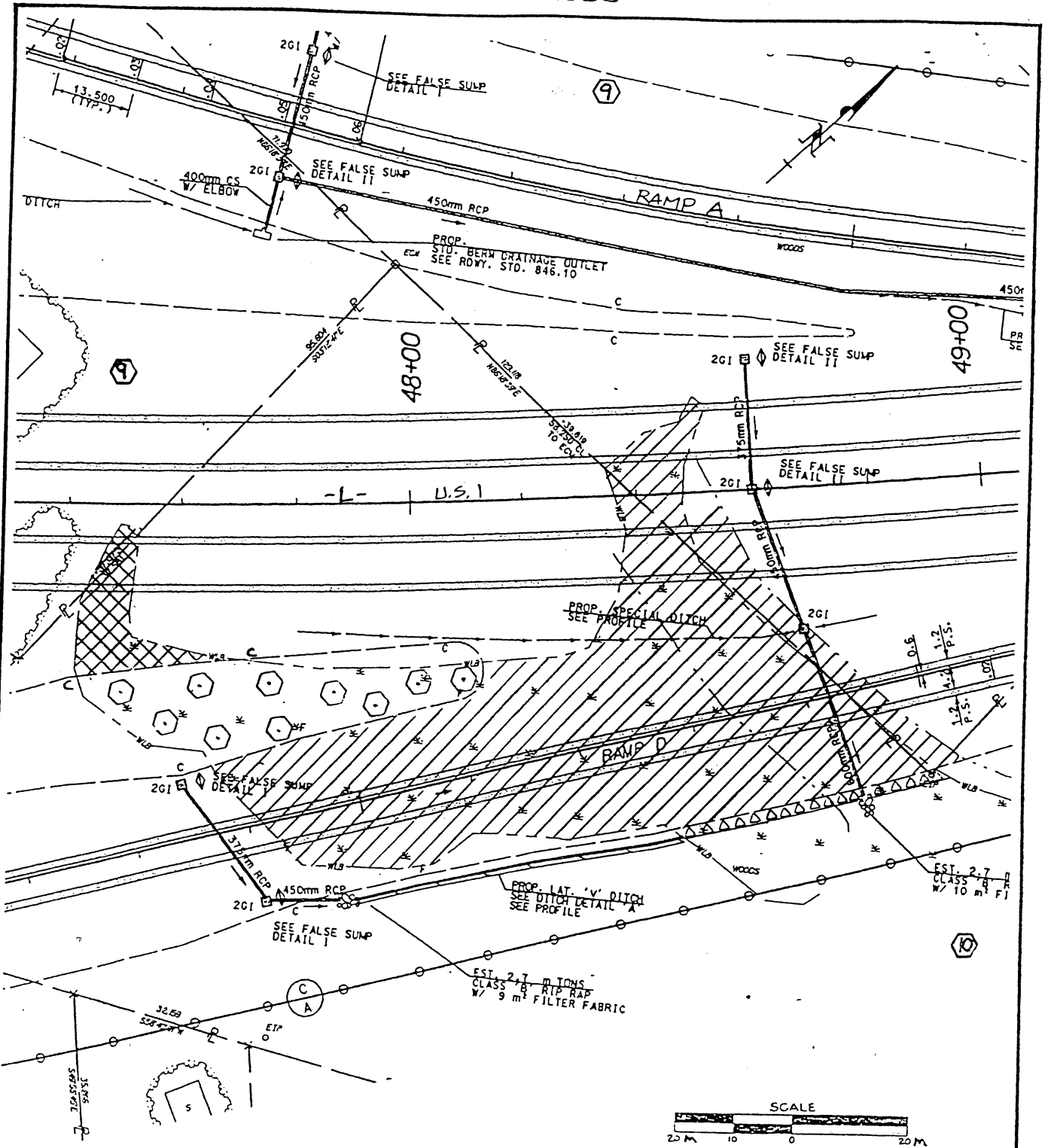


NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A

SHEET 15 OF 58



SITE #8

DENOTES ADDITIONAL WE HARD IMPACT
DUE TO ADJACENT IMPACTS



DENOTES FILL IN WETLAND.



Denotes excavation in wetland.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 20 OF 58
16

NOVEMBER 1997

SITE 9

KEITH BYRD
DB 510 PG 444

(42)

2+00

50+00

C
A

EST. 2.7 m TONS
CLASS 'B' RIP RAP
W/ 10 m² FILTER FABRIC

115

F

F

211.189
S053°57'E

WLB

PROP. SPECIAL DITCH
SEE PROFILE



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A

SHEET 17 OF 58

JN 49+60

2GI
EIP

1.2
P.S.

1.2
P.S.

7.2

1.2
P.S.

.04

↑

↑

↑

↑

CONST. REV.

R/W REV.

SITE 9

KEITH BYRD
DB 510 PG 444

42

D OLDHAM
33 PG 95

31

 $3+00$

SLOPE STAKE LINE

RAMP A

450mm RCF

~~PROP. SPECIAL DITCH~~
~~SEE PROFILE~~

49+00

ET

STAKE LINE

SEE FALSE SUMP
DETAIL II

109
2GI
(TYPE "D")

SEE FALSE SUM

~~PROP. / SPECIAL DITCH~~
~~SEE PROFILE~~

-L-BASELINE PINC 38+38.896 =
-L-POC 49+48.516, 14.258 RT.

-L- POC 49-18.516, 14.258 RT.

RAMP D

EST. 2. T
CLASS B
W/ 10 m.

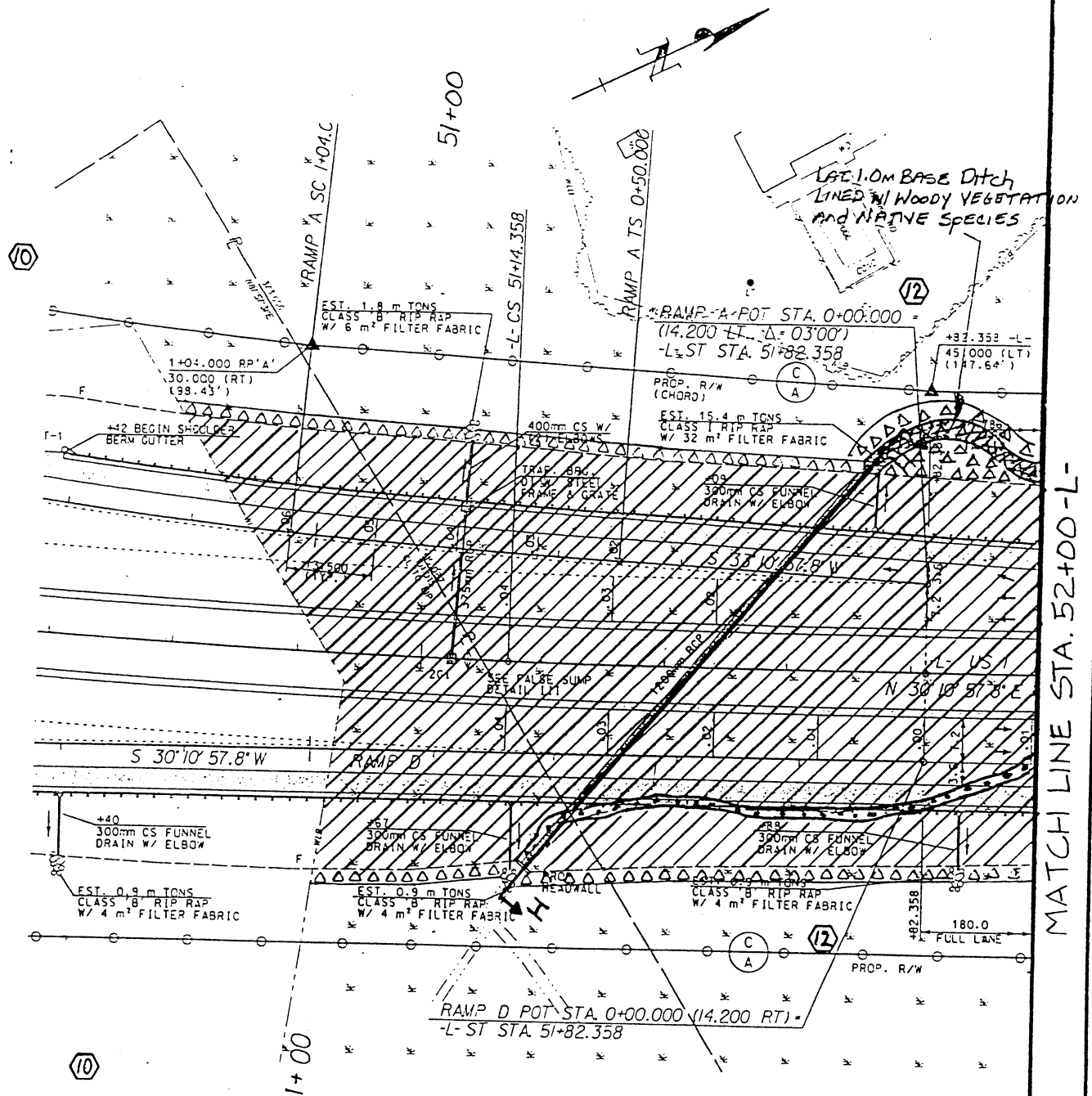


**NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION**

**DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH**

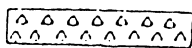
MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A

SHEET 18 OF 58

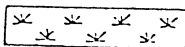


DENOTES EXCAVATION IN WETLANDS

SITE # 10



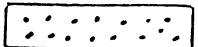
DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEANING
BEYOND CONSTRUCTION LIMITS



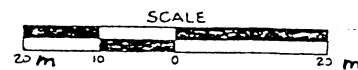
DENOTES WETLAND



DENOTES FILL IN WETLAND.



DENOTES FILL IN SURFACE WATERS



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

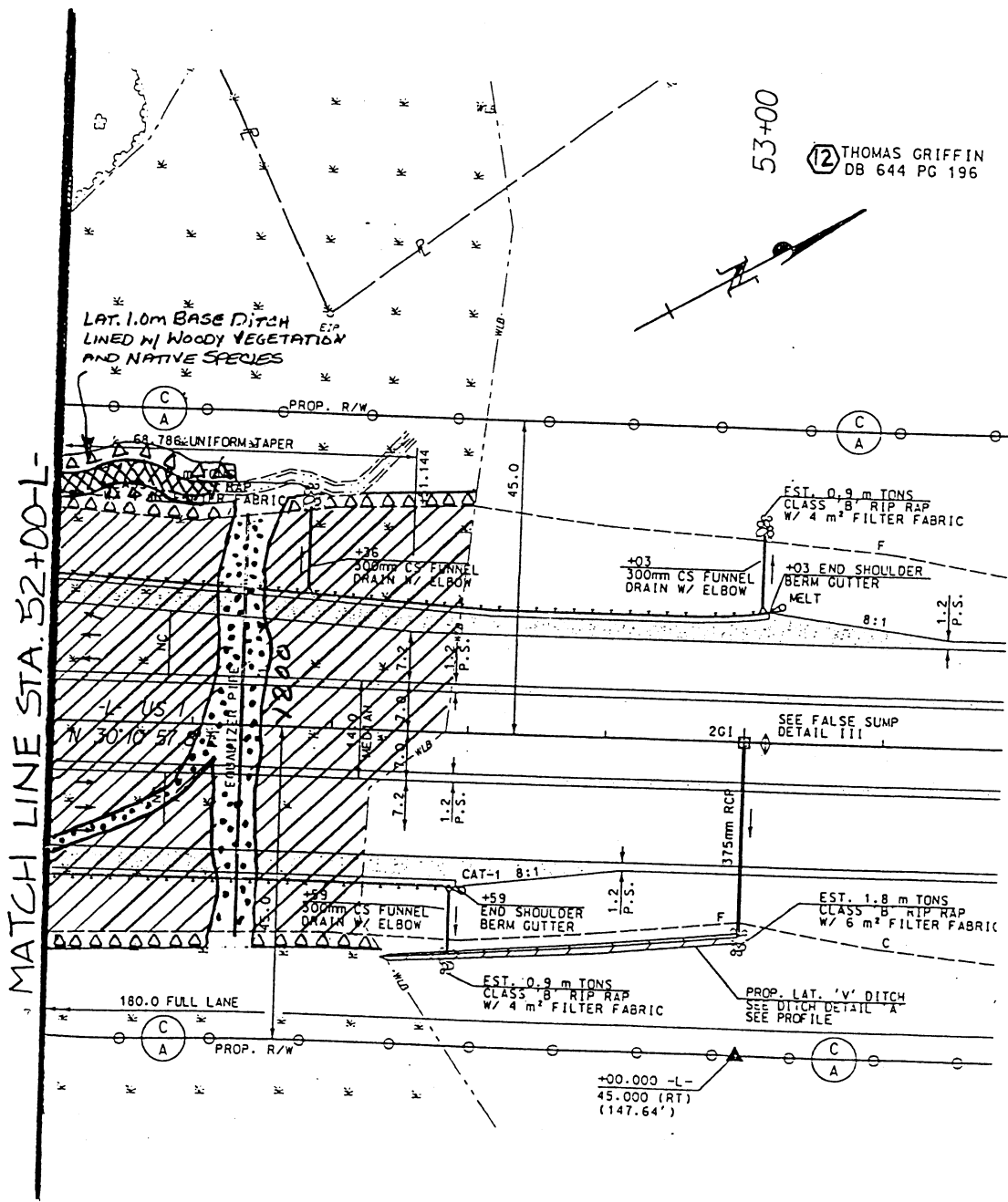
PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
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BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN


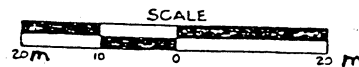
SHEET 12 OF 58

19

NOVEMBER 1997



SITE #10



DENOTES EXCAVATION IN NETLANDS

DENOTES FILL IN WETLAND.

五五五五

DENOTES WETLAND

Denotes Temp. Impact in Wetlands
Due to Mechanical Clearing Beyond
Construction Limits

.....

DENOTES Fill in SURFACE WATERS

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

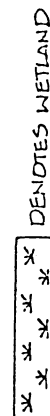
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
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SCALE AS SHOWN

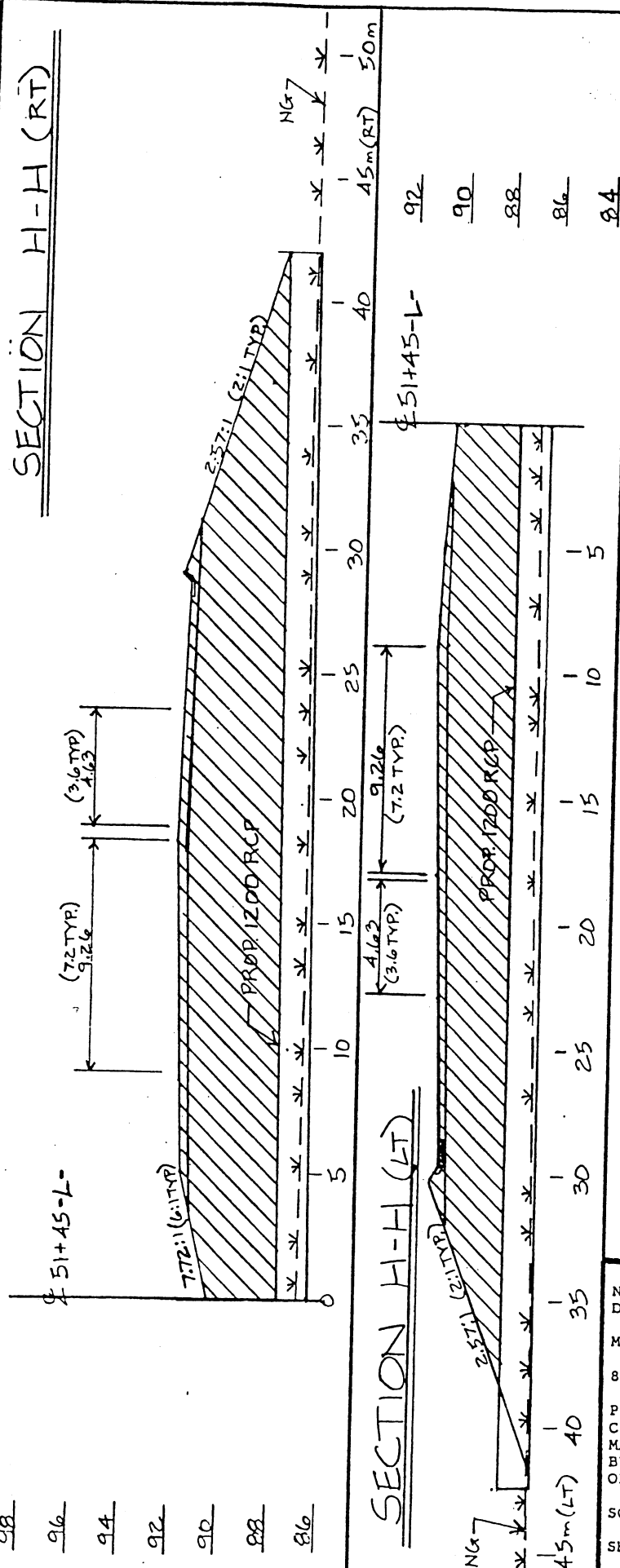
SHEET 20 OF 58

NOVEMBER 1997

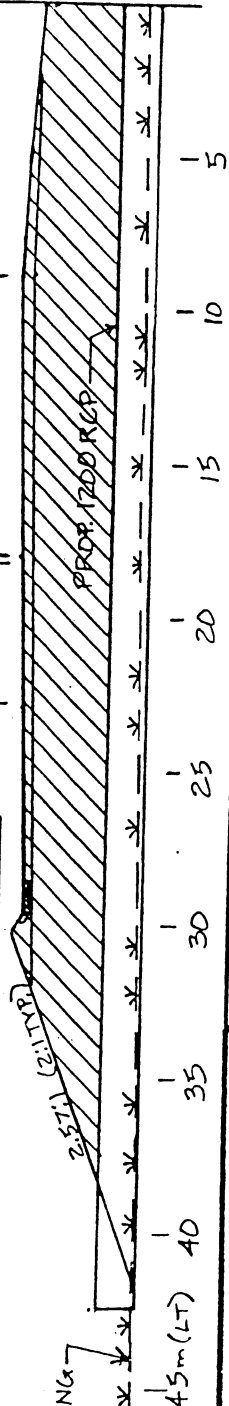


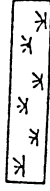

NOVEMBER 1997

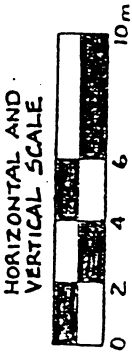
SECTION H-H (RT)



SECTION H-H (LT)



 DENOTES WETLAND
 DENOTES FILL IN WETLAND



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

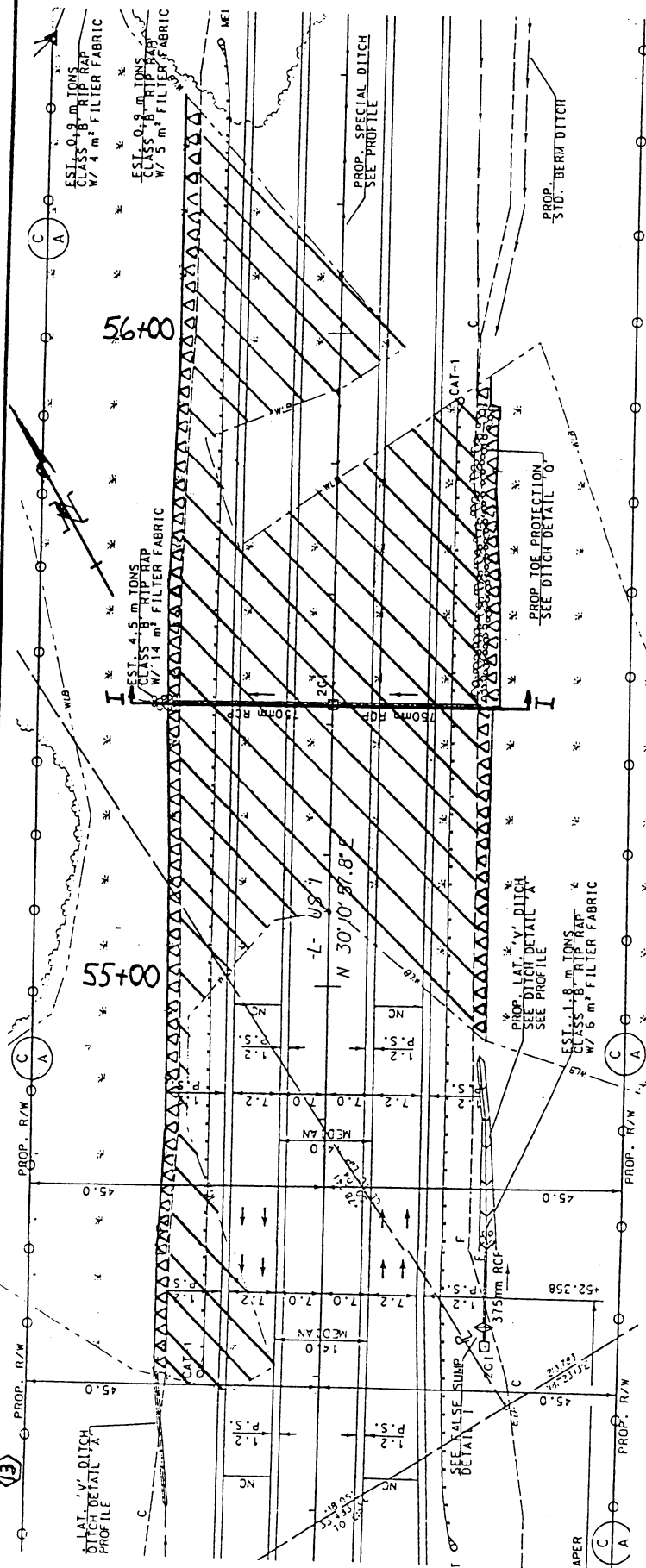
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
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 MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
 BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
 OF SR 1825.

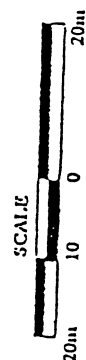
SCALE AS SHOWN

SHEET 22 OF 58

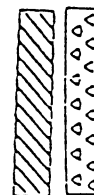
NOVEMBER 1997



SITE #11



DENOTES FILL IN WETLAND
 DENOTES TEMP. IMPACT IN WETLAND
 DUE TO MECHANICAL CLEARING
 BEYOND CONSTRUCTION LIMITS



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

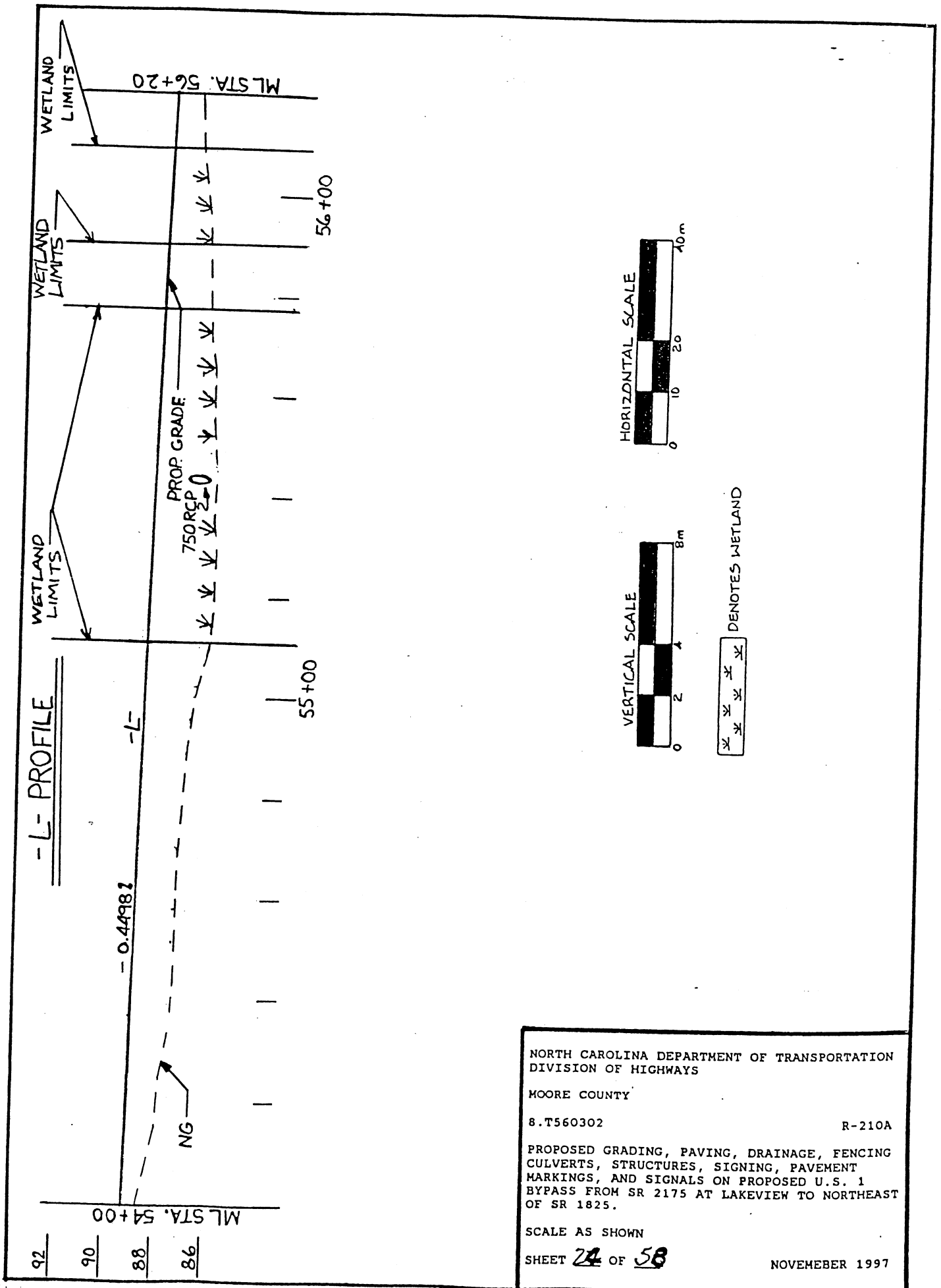
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
 CULVERTS, STRUCTURES, SIGNING, PAVEMENT
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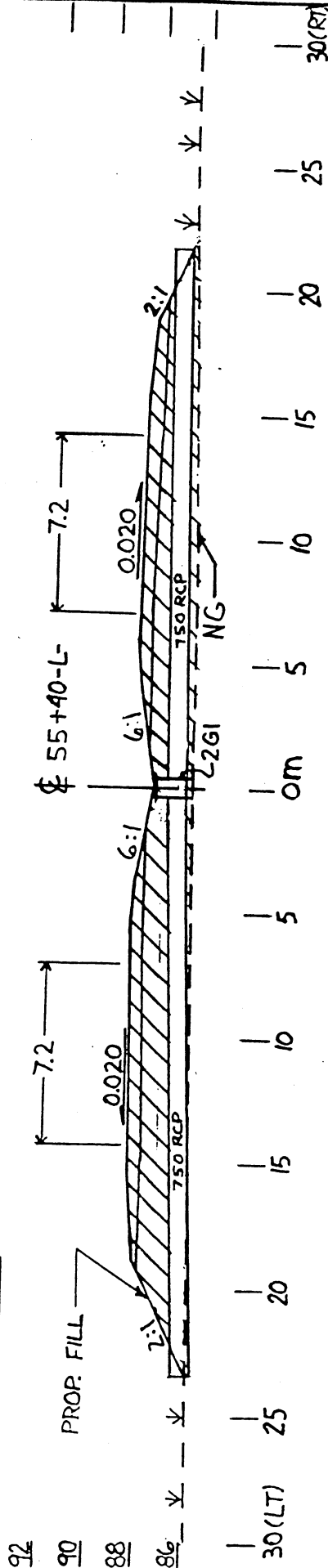
SCALE AS SHOWN

SHEET 20 OF 50
 23

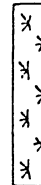
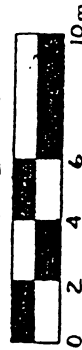
NOVEMBER 1997



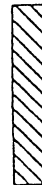
SECTION I-I



HORIZONTAL AND
VERTICAL SCALE



DENOTES WETLAND



DENOTES FILL IN WETLAND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 25 OF 58

NOVEMBER 1997

SITE 12

391.023
305.36'40"EPROP. SPECIAL BERM DITCH
SEE DITCH DETAIL 'AA'
SEE PROFILE-Y4-
(LT)

PROP. R/W

STAKE LINE

TO SHEET 15
ON 12+60

EXISTING R/W

31.7" E

SR 2005

CYPRESS CH RD

5.4 BST

18.238 (60')

STAKE LINE

EXISTING R

PROP. R/W

PROP. LAT. 'V' DITCH
SEE DITCH DETAIL 'A'
SEE PROFILENORTH CAROLINA DEPARTMENT OF
TRANSPORTATIONDIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCHMOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A

SHEET 26 OF 58

SITE 12

MATCHLINE TO SHEET 31
STATION 12+60EST. 10.0 m
CLASS 'B' RIP
W/ 24 m² FILAT. 'V' DITCH
CH DETAIL 'A'
FILE243.709
S03°36'40"E

PROP. R/W

PROP.
HEADWALL

x 0.6 CREEK

+42
BEGIN SHOULDER
BERM GUTTER+43
400mm CSP
W/ (2) ELBOWS+45.074 -L-
45.000 (LT)PROP.
'V' TAIL DITCH
SEE DITCH DETAIL 'V'EST. 0.9 m TONS
CLASS 'B' RIP RAP
W/ 5 m² FILTER FABRIC

18.288 (60')

REMOVE
600mm CONC

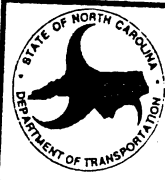
3.63.6

S 79.44° 31.8"E

WLB

SLOPE STAKE LINE

PROP. R/W

PRO
SO
SEE
SEETRAF. BRG.
DI W/ ANGLE
VANE GRATENORTH CAROLINA DEPARTMENT OF
TRANSPORTATIONDIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCHMOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210.A

SHEET 27 OF 58

GRAL
350

// (140)

11+00

SITE 13

-Y4-CS 10+67.522

-Y4-ST 11+09.522

EST. 29.9 m TONS
CLASS 1 RIP RAP
W/ 52 m² FILTER FABRIC

EST. 5.0 m TONS
CLASS 'B' RIP RAP
W/ 5 m² FILTER FABRIC
LOCATE & REMOVE
EXIST. 600mm CS

REMOVE EXIST.
2 @ 600mm CONC

PROP. SPECIAL DITCH
SEE PROFILE

+60.000 -Y4-
13.000 (LT)

+30.000 -Y4-
9.144 (LT)

PROP. R/W

BLEND TO EXIST.
F (LT & RT.)

SR 2005
CYPRESS CH RD

5.4 BST

PROP.

+30.000 -Y4-
9.144 (RT)

0.000
ION



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A

N.C. GRID
NAD 83

IARD

SITE 14

-Y4- ST 16+01.351

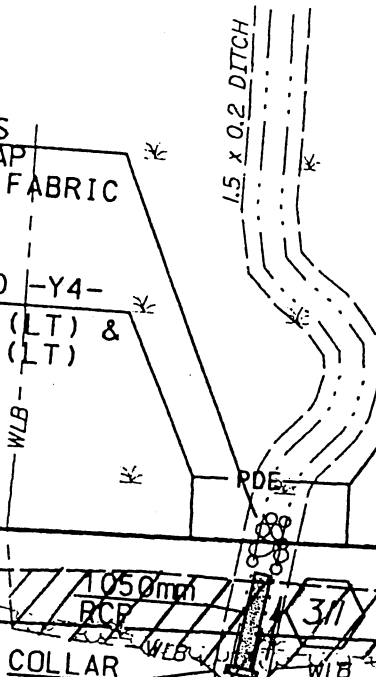
EST. 13.6 m TONS
CLASS B RIP RAP
W/ 31 m² FILTER FABRIC

+43.000 -Y4-
15.000 (LT) &
19.000 (LT)

+25.000 -Y4-
15.000 (LT)

+53.000 -Y
15.000 (LT)
19.000 (LT)

UNABLE
ALL U/G
OTHER UNG
MAY EXIST



13.000
(TYP.)

1050mm
RCP
COLLAR

EXISTING R/W

4.8
GRAVEL
DRIVE
REMOVE
375mm/CONC

375mm RCP

1050mm
RCP

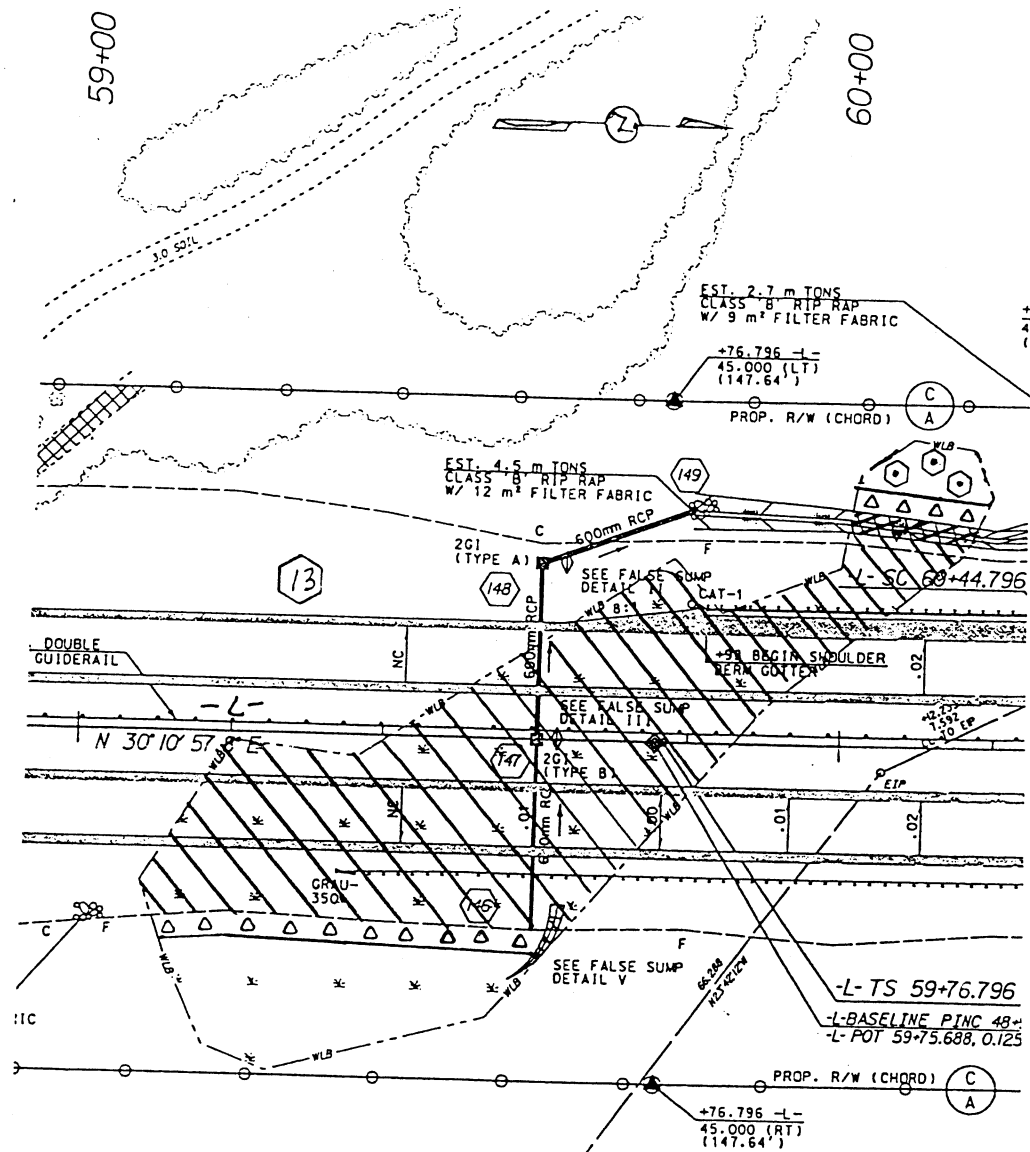
RETAIN
EXTEND
30mm CONC

NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

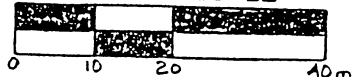
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH




MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A



HORIZONTAL SCALE



DENOTES ADDITIONAL WETLAND IMPACT
DUE TO ADJACENT IMPACTS



DENOTES FILL IN WETLAND.

DENOTES TEMP. IMPACT IN WETLAND
 DUE TO MECHANICAL CLEARING
 BEYOND CONSTRUCTION LIMITS.



DENOTES EXCAVATION IN WETLAND.

SITE 14a

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

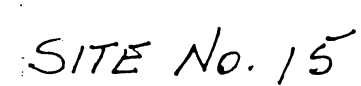
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 30 OF 58

NOVEMBER 1997



DENOTES FILL IN WETLAND.

DENOTES FILL IN SURFACE WATER.

DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS.

MOORE COUNTY

8.T560302

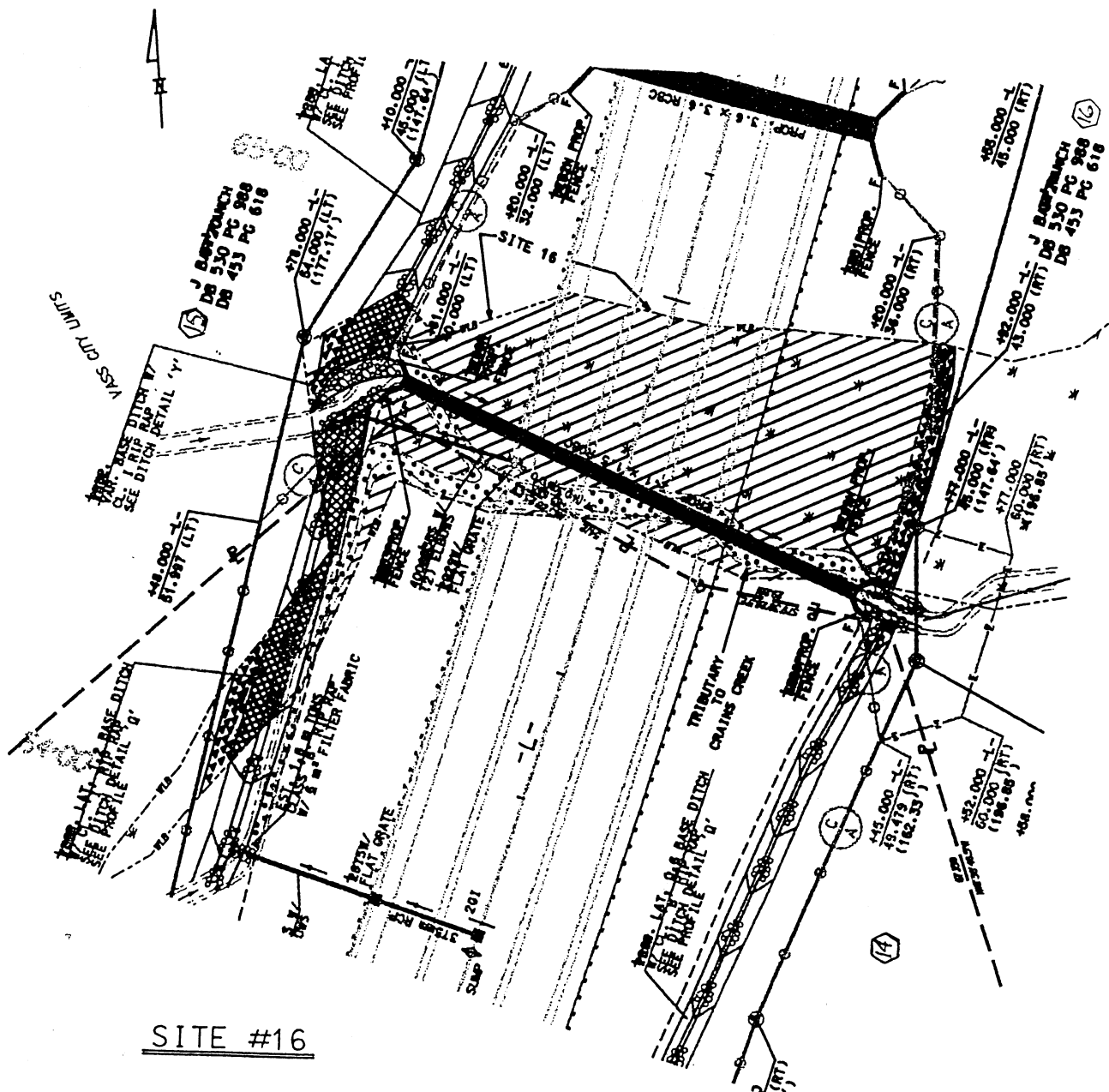
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

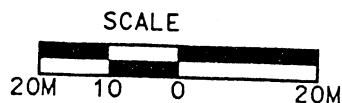
SCALE AS SHOWN

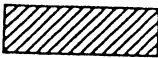
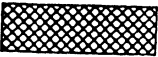
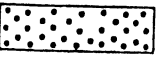
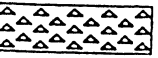
SHEET 31 OF 58

NOVEMBER 1997



SITE #16



-  DENOTES FILL IN WETLAND
-  DENOTES EXCAVATION IN WETLANDS
-  DENOTES FILL IN SURFACE WATER
-  DENOTES TEMP. IMPACT IN WETLAND DUE TO MECHANICAL CLEARING BEYOND CONSTRUCTION LIMITS

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

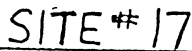
MOORE COUNTY

8.T560302






PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825

SCALE AS SHOWN

SHEET 32 OF 58



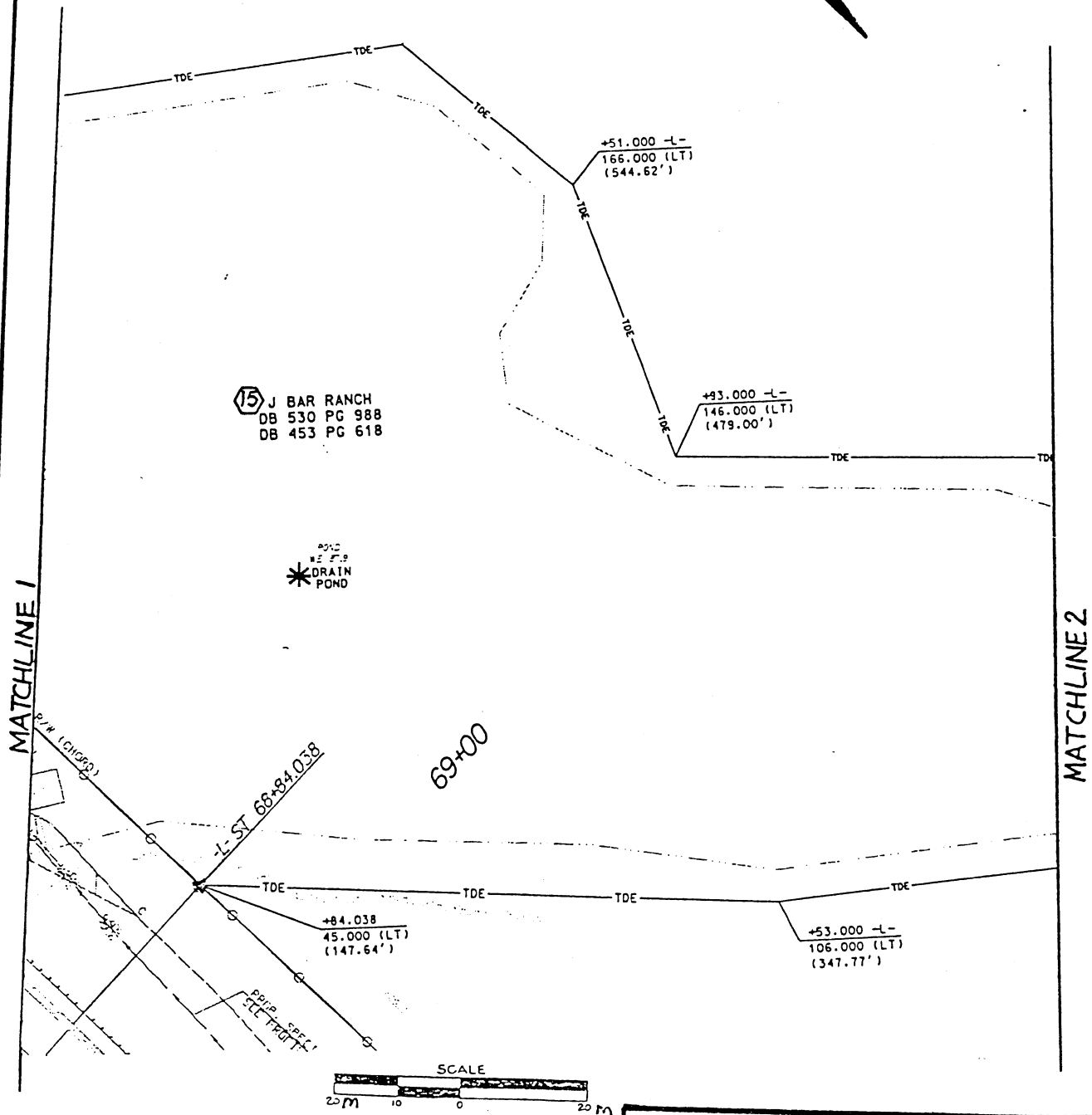
20m 10 0 20m

	20m	10	0	20m
	DENOTES FILL IN WETLAND			
	DENOTES EXCAVATION IN WETLANDS			
	DENOTES FILL IN SURFACE WATER			
	DENOTES TEMP. IMPACT IN WETLAND DUE TO MECHANICAL CLEARING BEYOND CONSTRUCTION LIMITS			

* TOTAL OF 2.36 ha. OF IMPACT TO SURFACE WATER
DUE TO DRAINING POND.

SHEET 33 OF 58

NOVEMBER 1997



SITE #17

* TOTAL OF 2.36 ha. OF IMPACT TO
SURFACE WATER DUE TO DRAINING POND.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

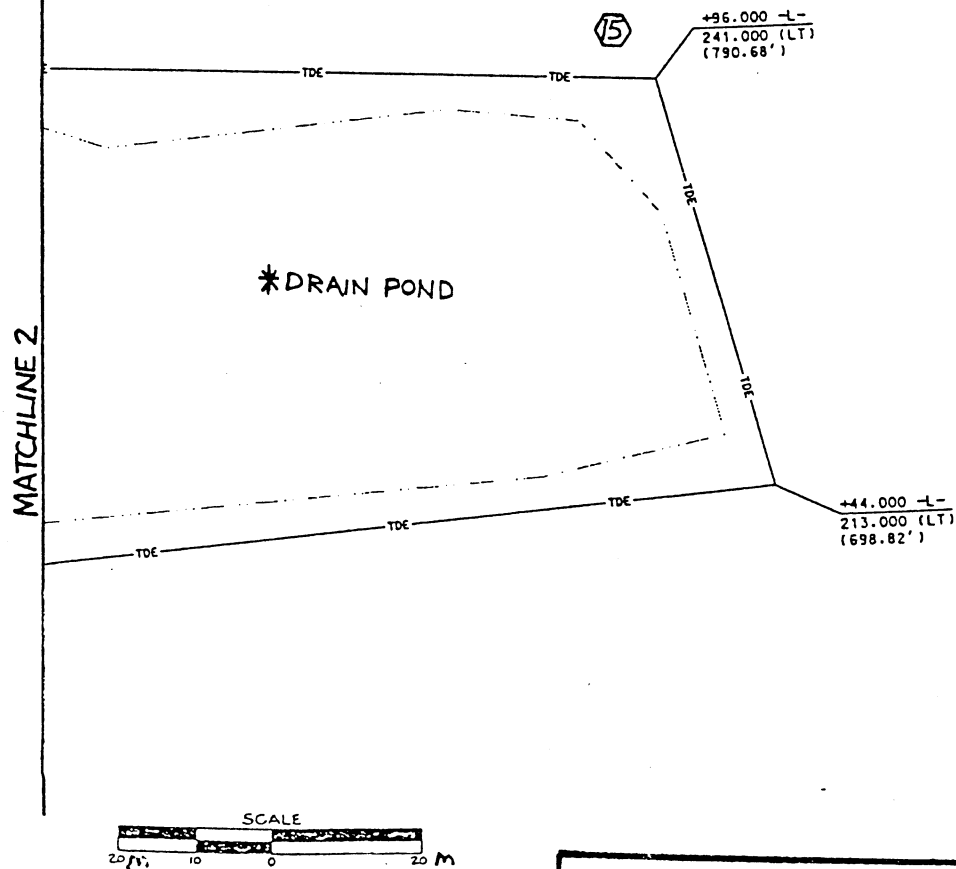
PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 34 OF 58

NOVEMEER 1997

TEMPORARY DRAINAGE EASEMENT AROUND POND @ J BAR RANCH



SITE #17

* TOTAL OF 2.36 ha. OF IMPACT TO
SURFACE WATER DUE TO DRAINING POND.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

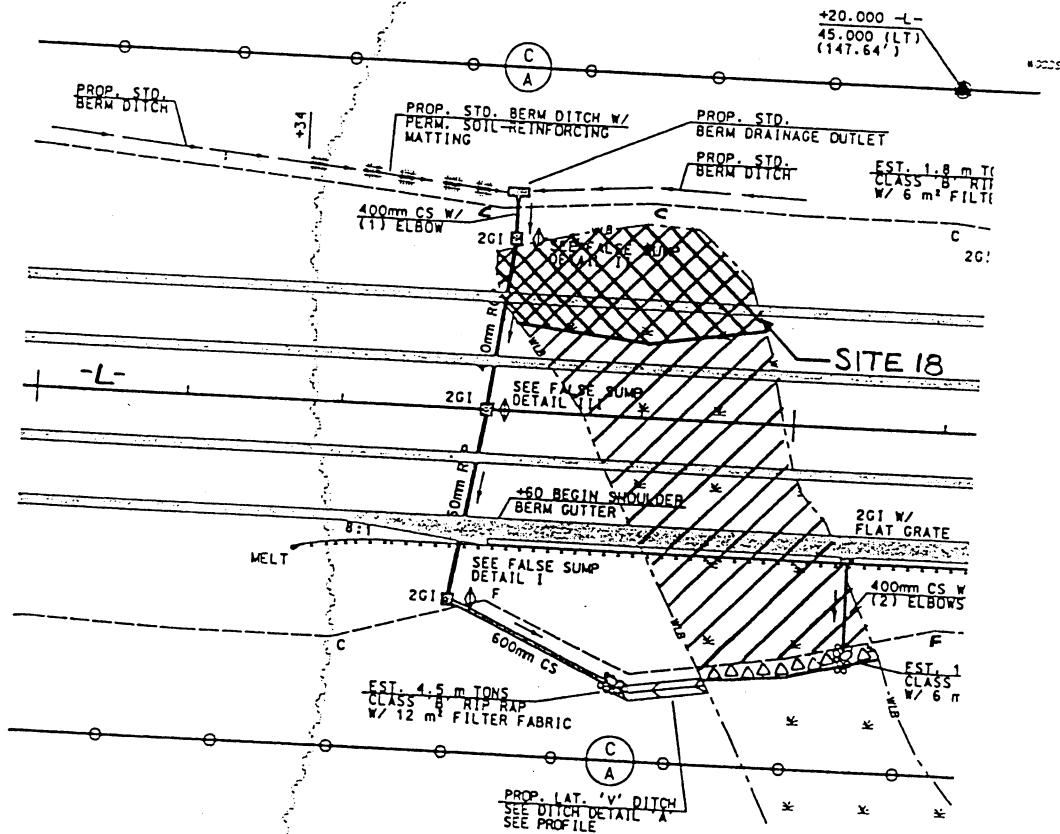
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CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.


SCALE AS SHOWN

SHEET 35 OF 58

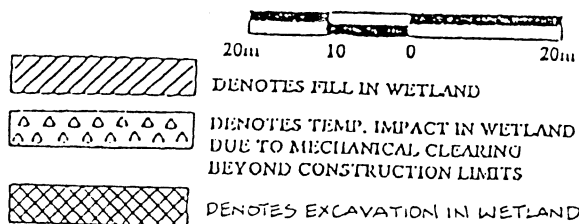
NOVEMBER 1997

15 J BAR RANCH;
DB 530 PG 988
DB 453 PG 618

 $7.2 + 0.0$ 


 J BAR RANCH
 DB 530 PG 988
 DB 453 PG 618

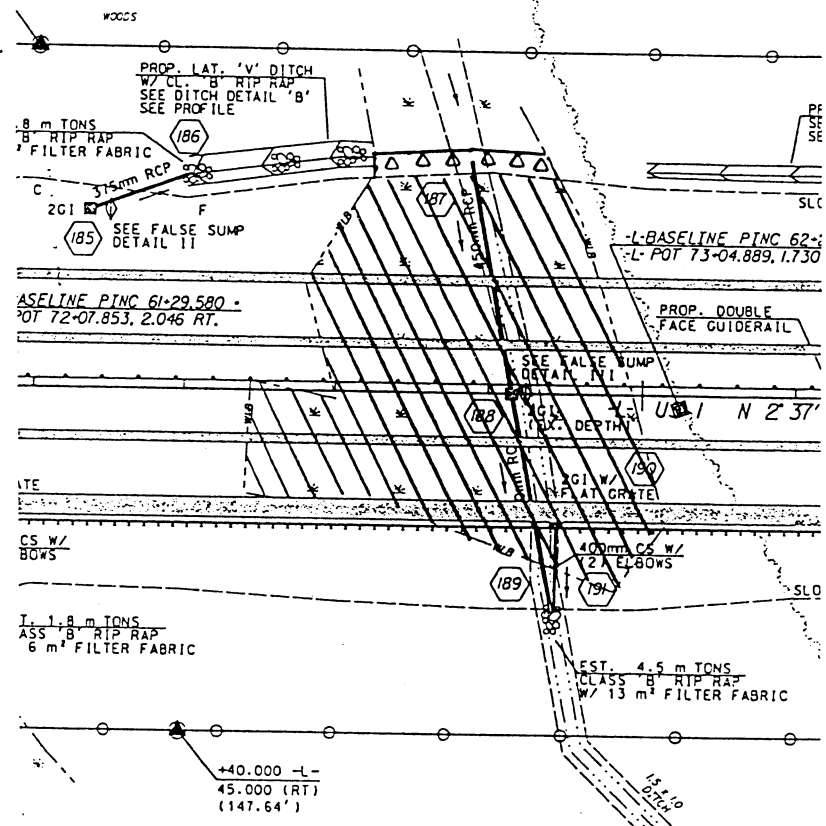
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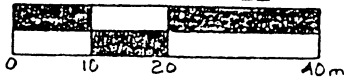
NOVEMBER 1997

N.C. GRID
NAD 84

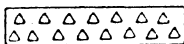
73+00



HORIZONTAL SCALE



DENOTES FILL IN WETLAND.

DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS.

SITE 18a

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

B.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

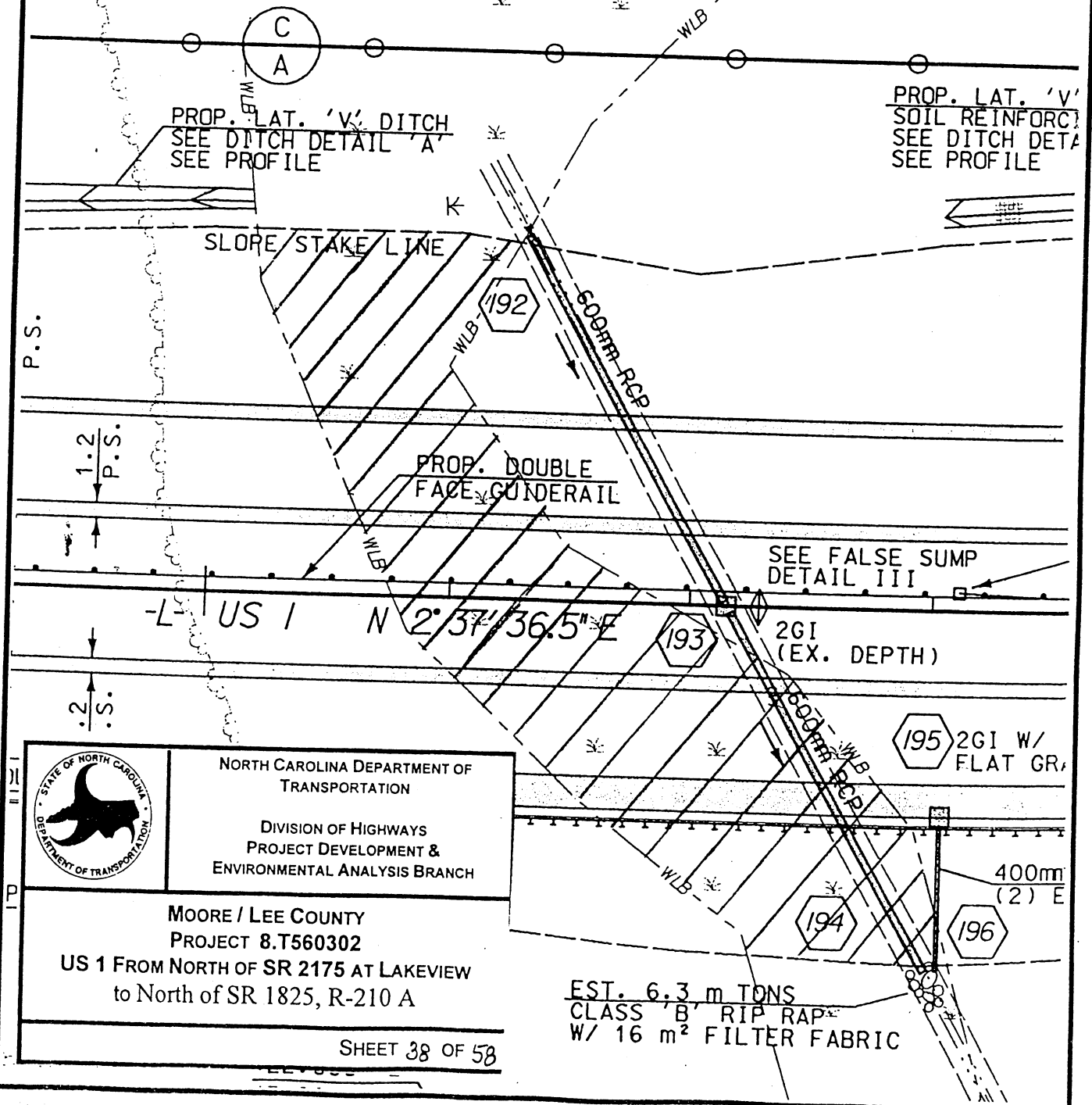
SCALE AS SHOWN

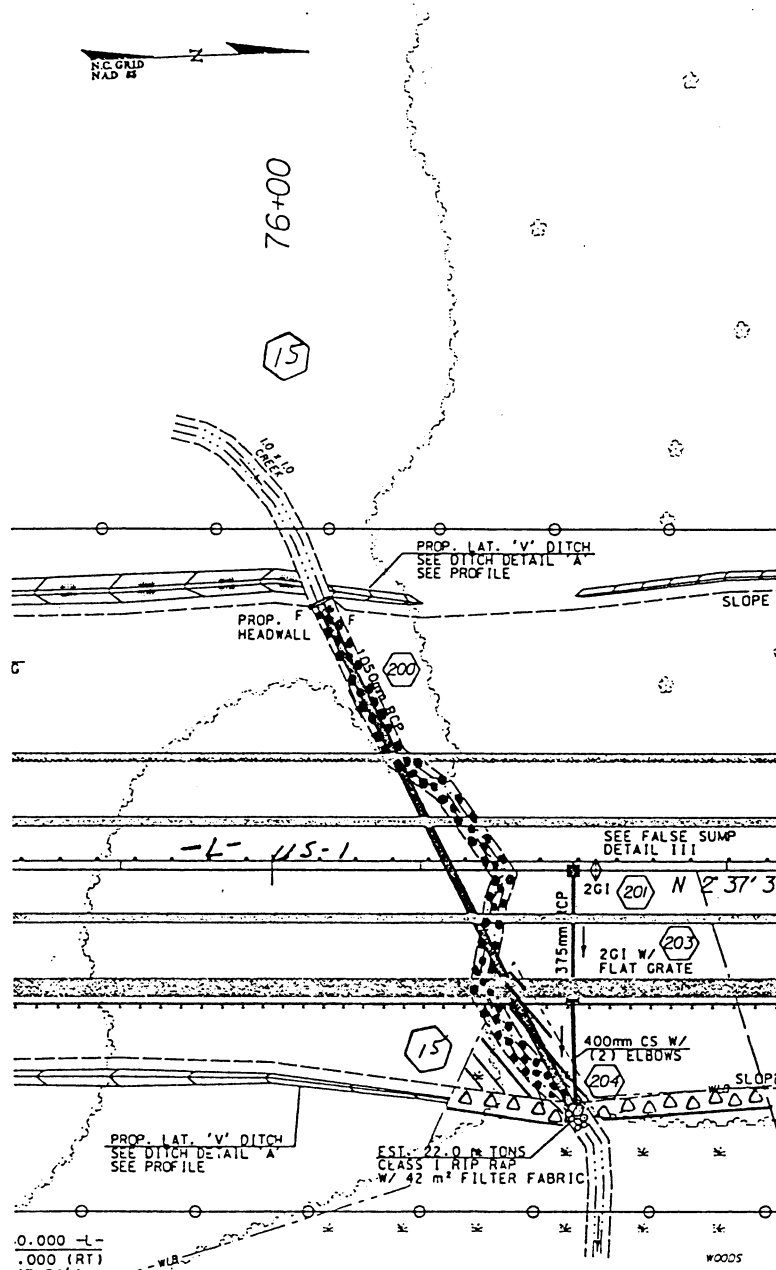
SHEET 37 OF 58

NOVEMBER 1997

SITE 186

WOODS

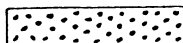




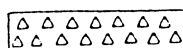
SITE 19



DENOTES FILL IN WETLAND.



DENOTES FILL IN SURFACE WATER.

DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS.NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 39 OF 58

NOVEMBER 1997

SITE 20

PROP.
'V' HEAD DITCH
SEE DITCH DETAIL 'V'

LAT. 'V' DITCH
DITCH DETAIL 'A'
PROFILE

SLOPE STAKE LINE

PROP. LAT. 'V' DITCH
SEE DITCH DETAIL 'A'
SEE PROFILE

PROP. DOUBLE
FACE GUIDERAIL

SEE FALSE SUMP
DETAIL III

2GI 201 N 2° 37' 36.5" E -L- US 1

2GI W/



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A

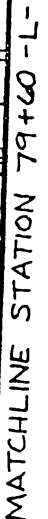
SHEET 40 OF 58

OLDER BERM GUTER

STAKE LINE

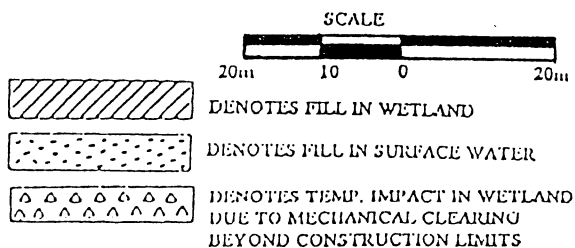
EST. 4.5 m TONS
CLASS 'B' RIP RAP
W/ 12 m² FILTER FABRIC

EST. 1.8

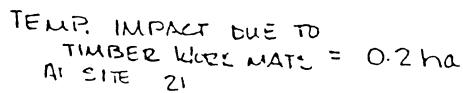
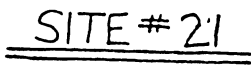


REDGA R. THOMAS
DB 133 PG 406

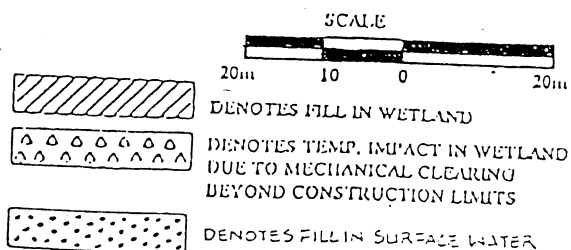
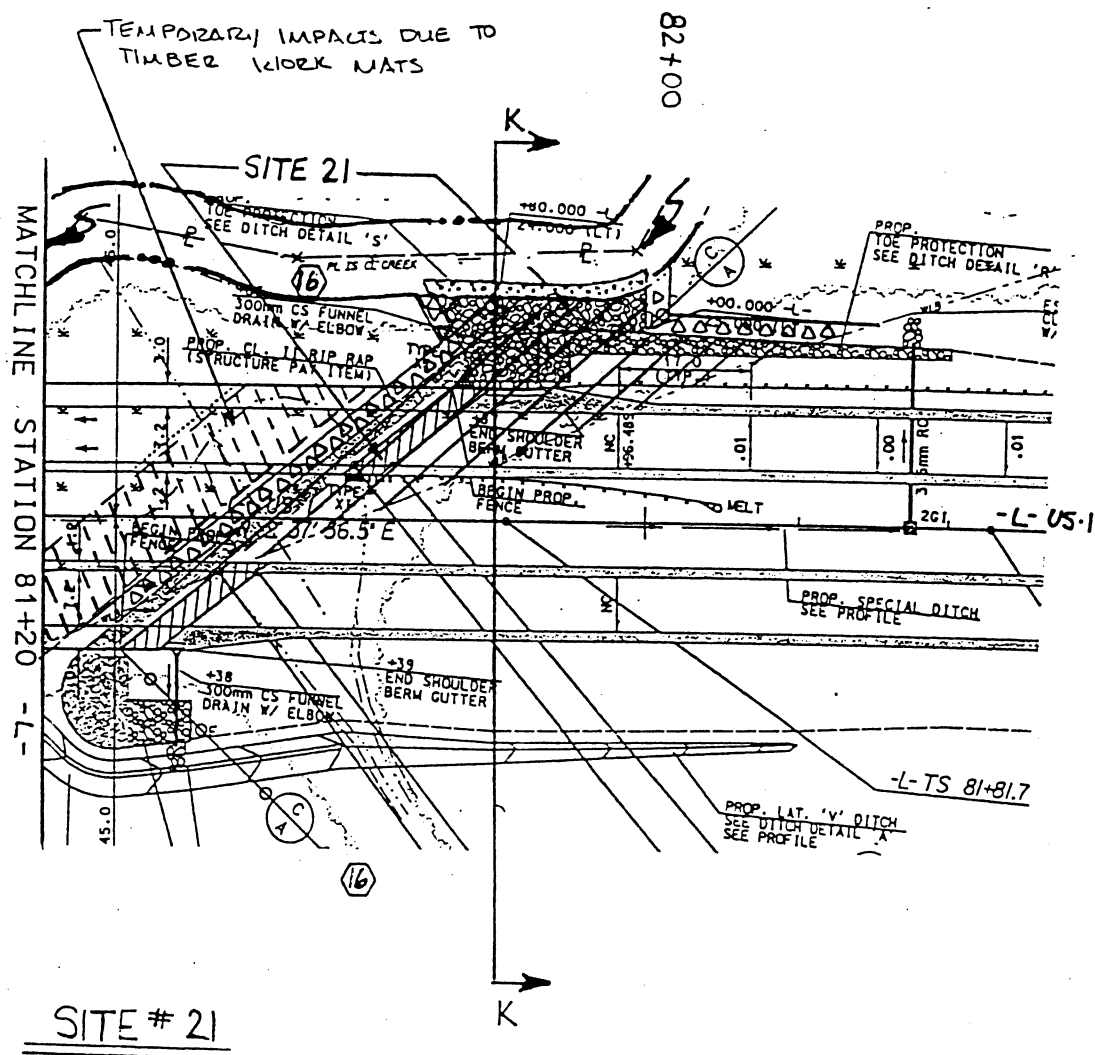
SITE #21



NOVEMBER 1997



NOVEMBER 1997
REV. 01/10/01



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

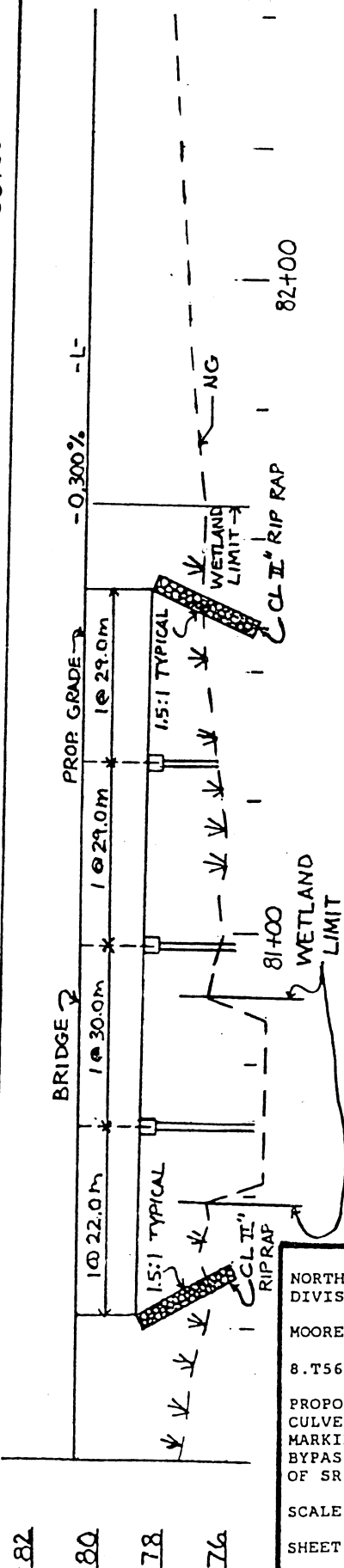
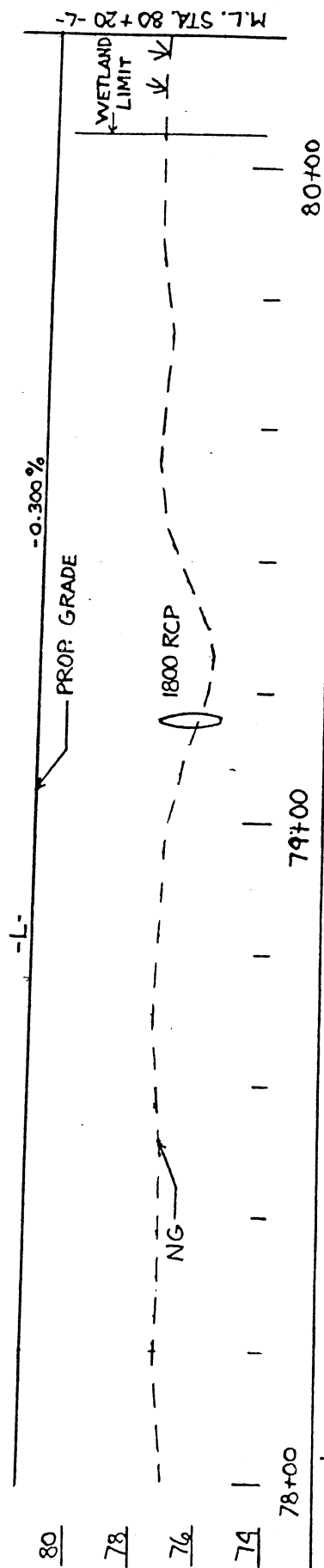
PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 48 OF 58

NOVEMBER 1997

REV. 01/10/01



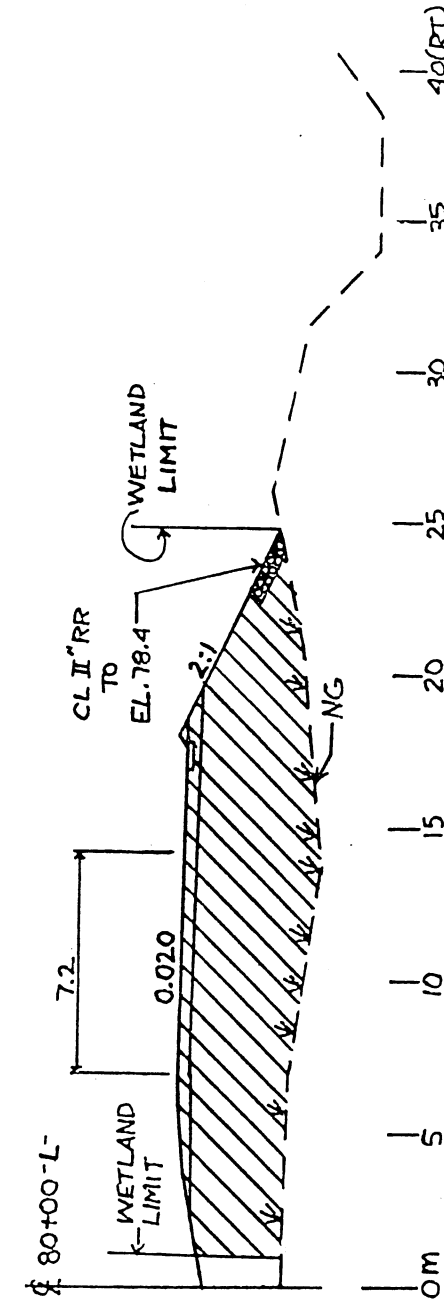
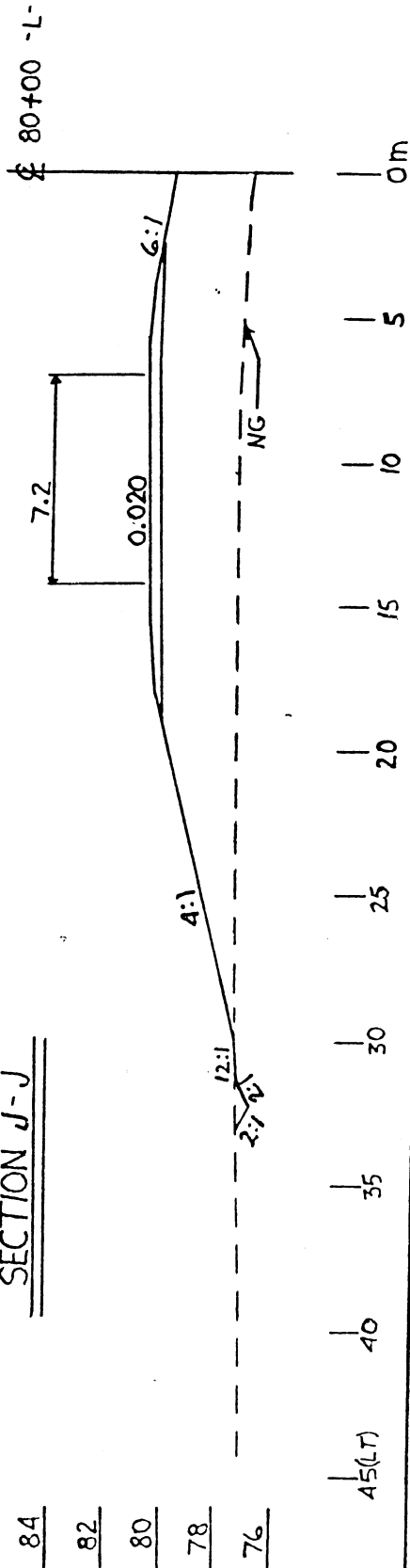
A horizontal scale bar with markings at 0, 10, 20, and 40 cm. The text "HORIZONTAL SCALE" is written vertically above the bar.

K K K K K

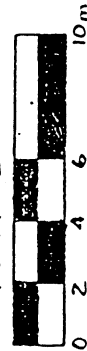
 DENOTES WETLAND

NOVEMBER 1997

SECTION J-J



HORIZONTAL AND VERTICAL SCALE



WETLAND LIMIT

WETLAND LIMIT

DENOTES FILL IN WETLAND.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

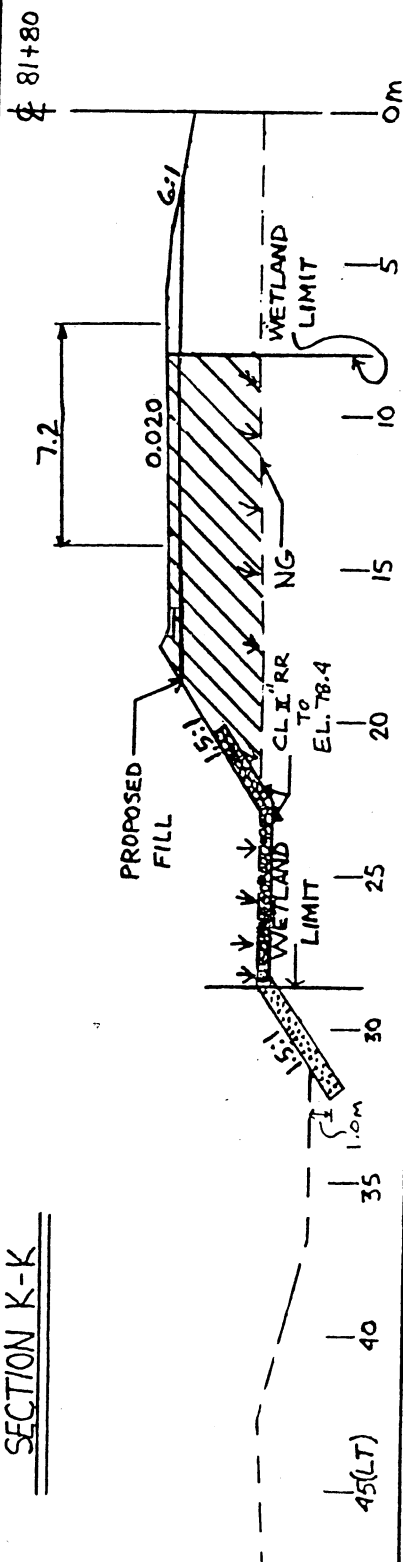
PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

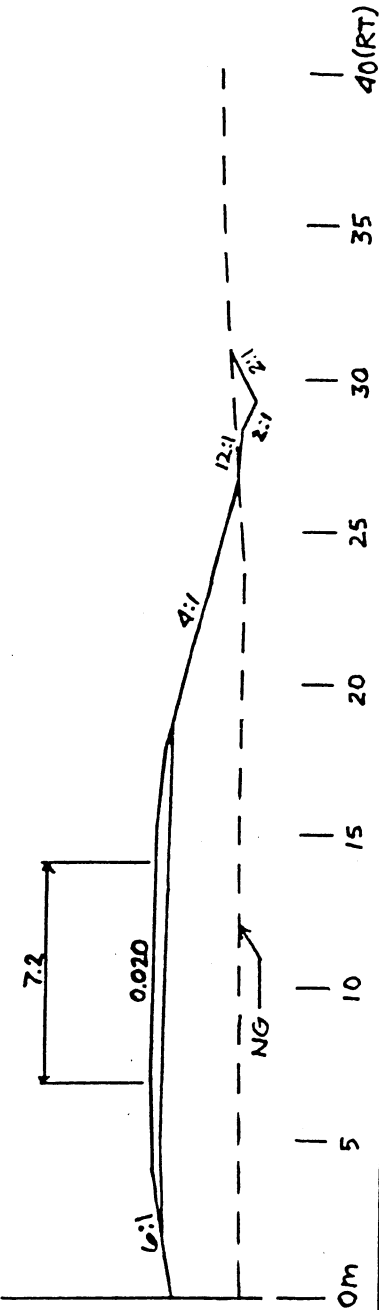
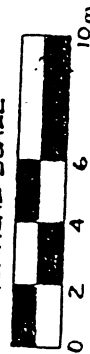
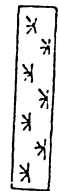
SHEET 45 OF 50


NOVEMBER 1997


SECTION K-K



81+80

HORIZONTAL AND
VERTICAL SCALE

 DENOTES WETLAND


 DENOTES FILL IN WETLAND.


 DENOTES FILL IN SURFACE WATER.
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS


MOORE COUNTY

8.T560302

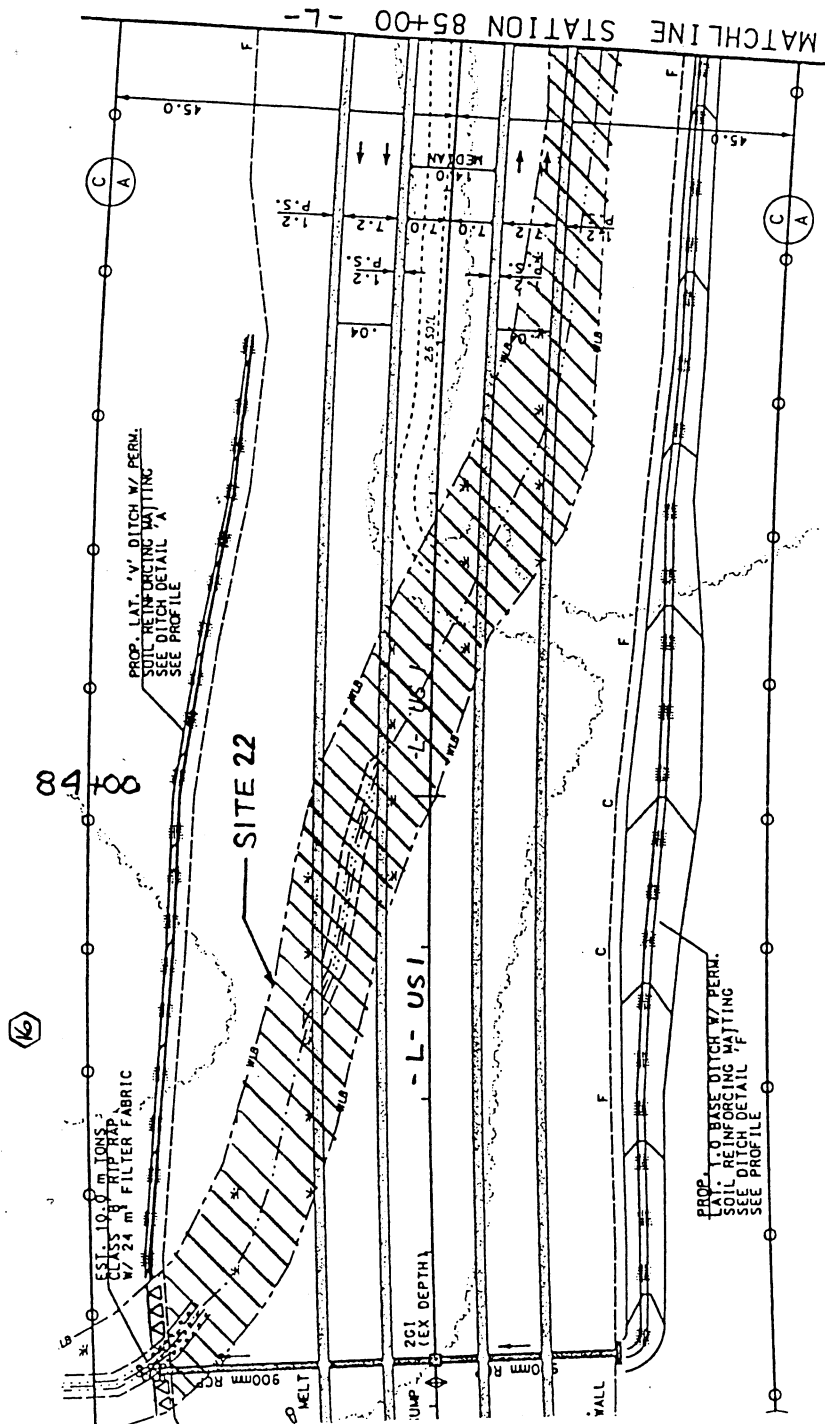
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET  OF 58
46

NOVEMBER 1997



SITE #22



DENOTES ILL IN WETLAND

DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS

DENOTES FILL IN SURFACE WATER

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

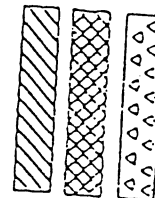
SHEET 1 OF 58

NOVEMBER 1997



270

SITE # 22



DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS

NOVEMBER 1997

R-210A

SITE 22A

PROP. 'V' TAIL DITCH
SEE DITCH DETAIL 'V'

EST. 4.5 m TONS
CLASS 'B' RIP RAP
W/ 12 m² FILTER FAB

600mm RCP

234

2GI
(TYPE B)

PROP. FALSE CUT
SEE DITCH DETAIL

233

600mm RCP

SEE FALSE SUMP
DETAIL III

2GI
(EX. DEPTH)

232

450mm RCP

SEE FALSE SUMP
DETAIL II

2GI
(TYPE "D")

231

400mm CSP
W/ ELBOW

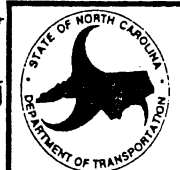
PROP.
EST.
SOIL-I

PROP. STD. BERM DITCH

230

PROP. STD.
BERM DRAINAGE OU

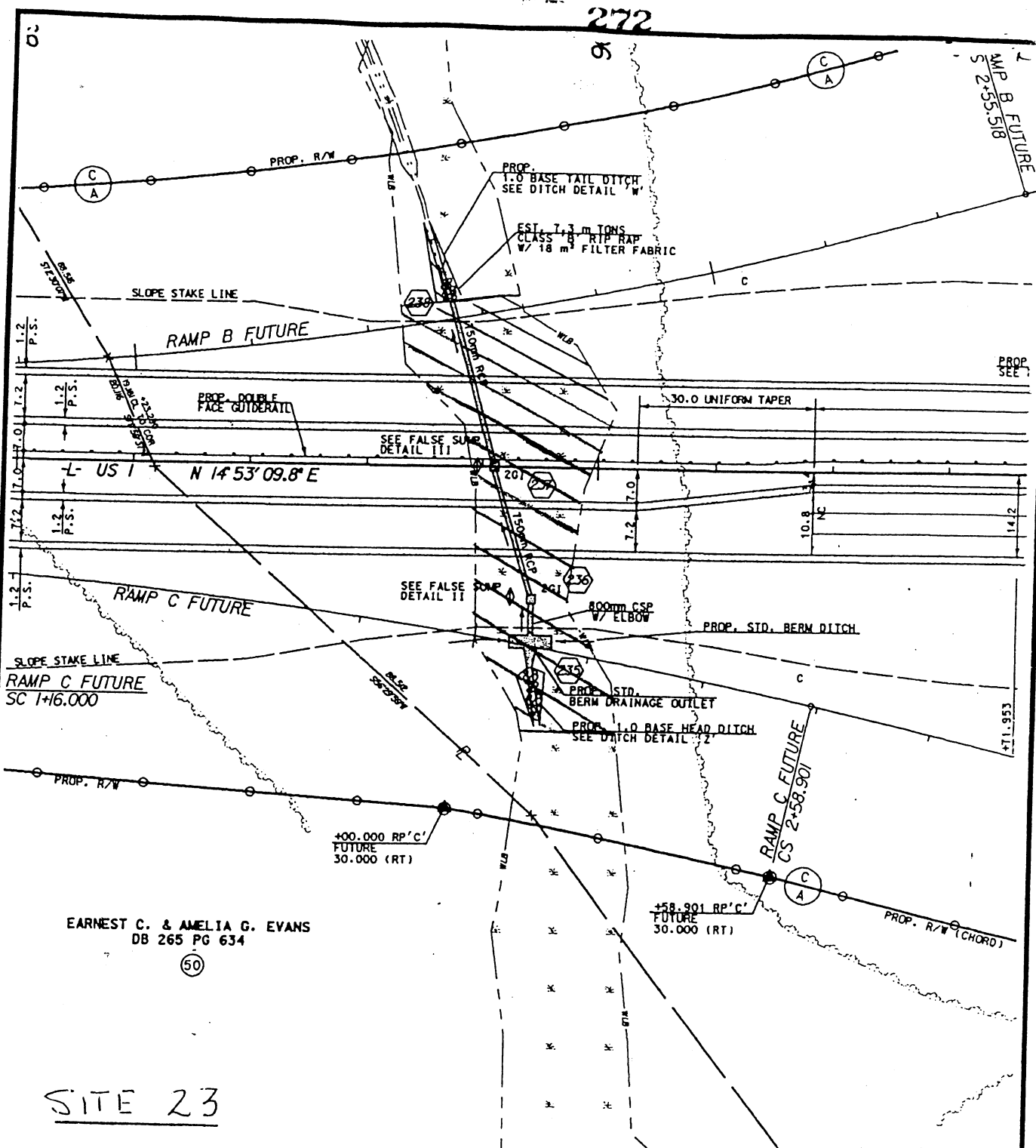
RAMP C FUTURE PC
(14.200 RT., $\Delta = 02^\circ 18'$)
-L- POT STA. 87+80.0



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A



SITE 23

EARNEST C. & AMELIA G. EVANS
DB 265 PG 634
(50)

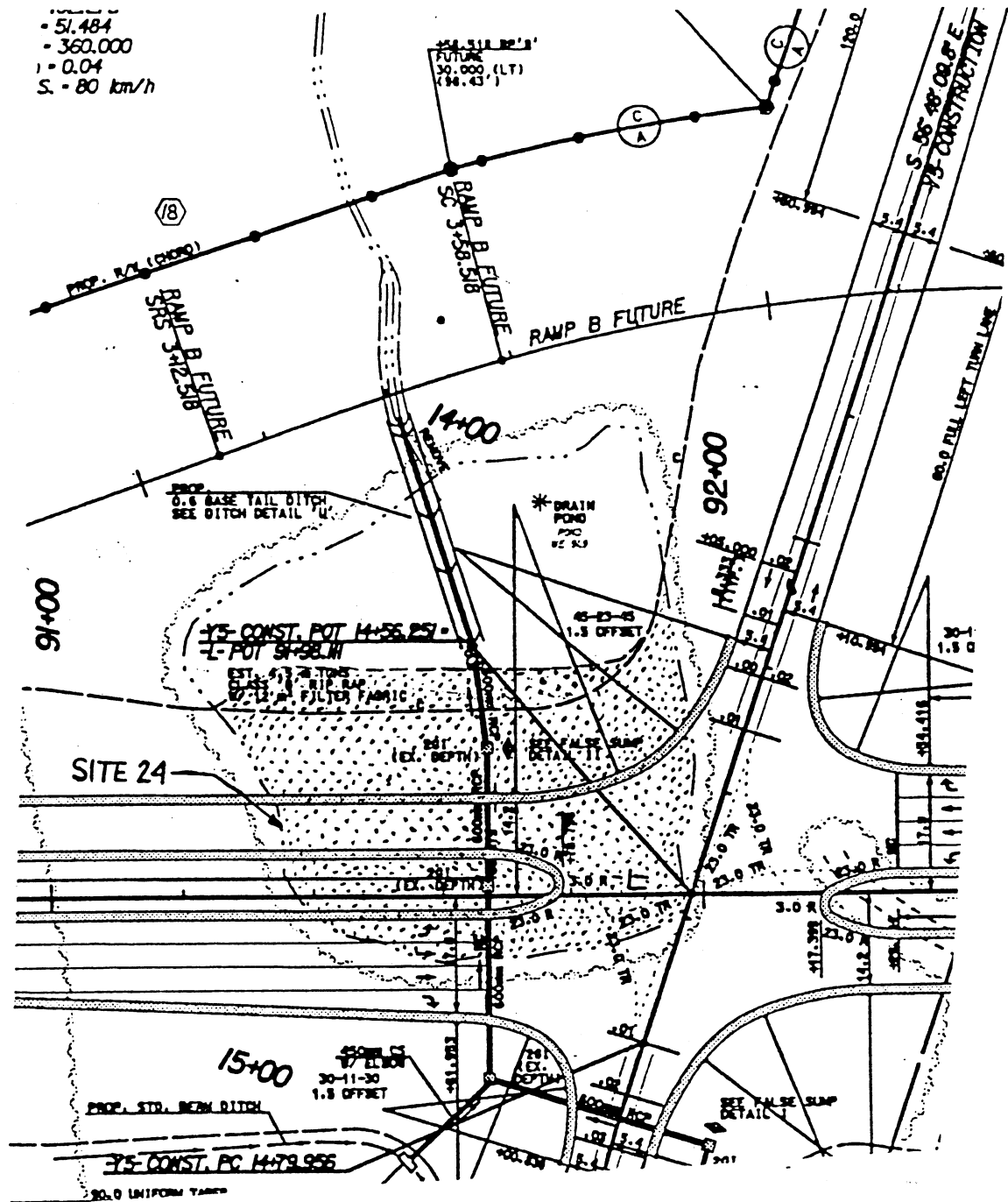


NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

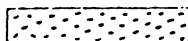
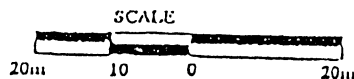
MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 2175 AT LAKEVIEW
to North of SR 1825, R-210 A

- 51.484
 - 360.000
 1" = 0.04'
 S. = 80 km/h



(18)

SITE#24



DENOTES FILL IN SURFACE WATER

* TOTAL OF .46 ha. OF IMPACT TO SURFACE WATER
DUE TO DRAINING POND.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

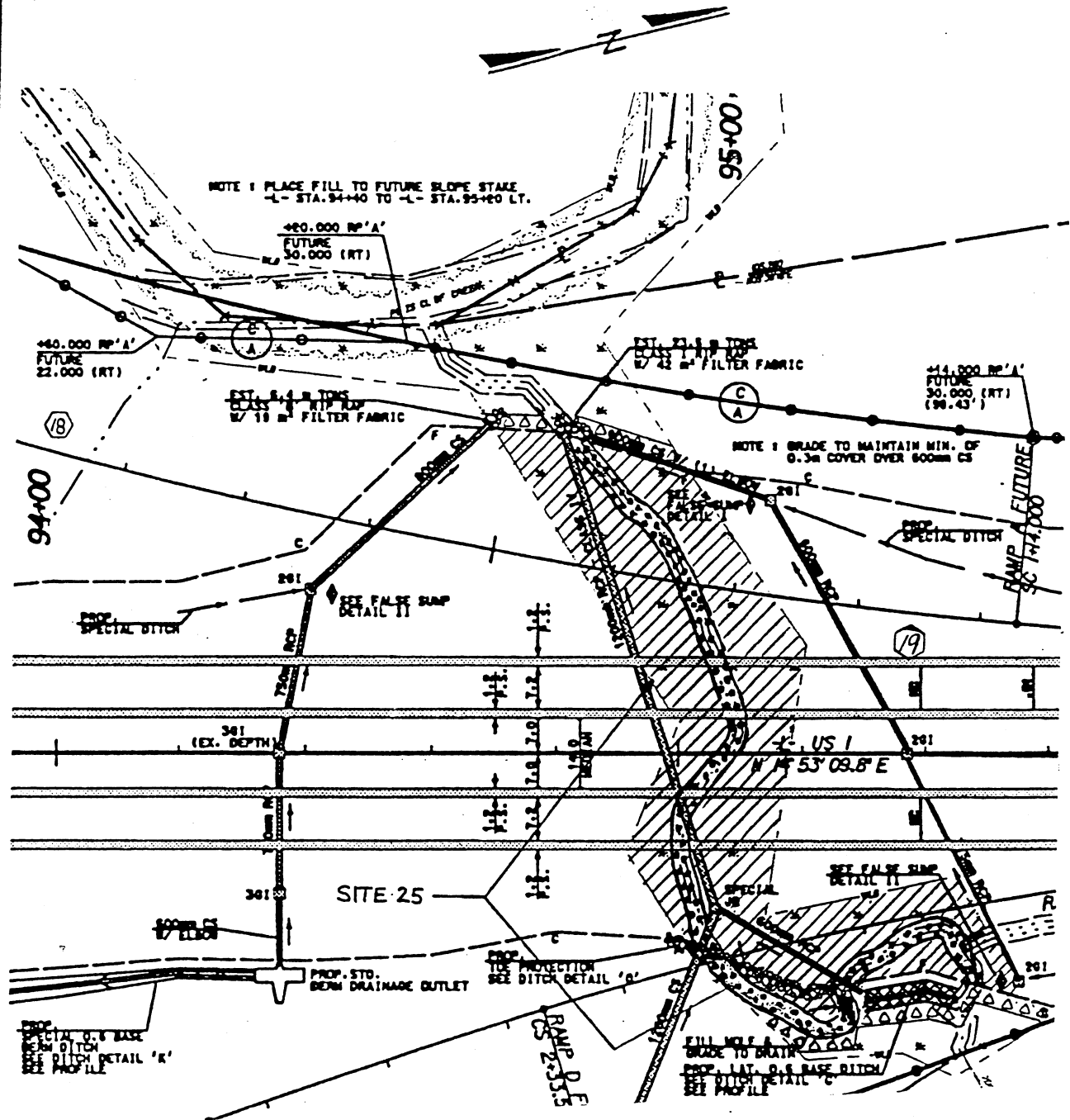
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 51 OF 58

NOVEMBER 1997



SITE #25

(18)

SCALE

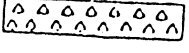
20m 10 0 20m



DENOTES FILL IN WETLAND



DENOTES EXCAVATION IN WETLANDS

DENOTES TEMP. IMPACT IN WETLAND
DUE TO MECHANICAL CLEARING
BEYOND CONSTRUCTION LIMITS

DENOTES Fill in SURFACE WATERS

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO NORTHEAST
OF SR 1825.

SCALE AS SHOWN

SHEET 52 OF 58

NOVEMBER 1997

SUMMARY TABLE - R210A

SITE NO.	PROJECT STATION	STREAM NAME	TRIBUTARY TO	STRUCTURE SIZE	FILL IN LENGTH OF			EXCAVATION	TEMP. IMPACT IN
					SURFACE WATER	EXISTING CHANNEL	WETLANDS IN WETLANDS		
				(mm)	(ha)	(m)	(ha)	(ha)	WETLANDS DUE TO MECHANICAL CLEARING BEYOND CONSTRUCTION LIMITS (ha)
1	23+19 - 31+05 (LT+RT) -L-	LITTLE RIVER	CAPE FEAR RIVER	3@27.42@18.0 SPAN BRIDGE	0.03	104	0	2.09	0.24
2	12+20 - 12+57 (LT+RT) -Y6-	TRIB. TO	LITTLE RIVER	450 RCP	0.00	0	0	0.14	<0.01
3	31+50 (RT+LT) - 34+83 (RT) -L-	TRIB. TO	LITTLE RIVER	1200 RCP	0.00	0	0	1.12	0.16
4	35+70 - 36+26 (LT+RT) -L-	TRIB. TO	LITTLE RIVER	750 RCP	0.00	0	0	0.23	0.02
5	10+08 (RT+LT) - 10+29 (LT) -Y2-	TRIB. TO	LITTLE RIVER	450 RCP	<0.01	2	0	<0.01	<0.01
6	41+81 (LT+RT) - 43+29 (LT) -L-	TRIB. TO	CRANE CREEK	800 RCP	0.00	0	0	0.46	0.02
7	3+08 (RT) - 3+34 (RT) RAMP C	TRIB. TO	CRANE CREEK	750 RCP	0.00	0	0	0.02	<0.01
8	47+41 (RT) - 47+69 (RT) -L- 4+24 (RT+LT) RAMP D	TRIB. TO	CRANE CREEK	800 RCP	0.00	0	0	0.36***	<0.01
9	1+86 (RT) - 2+82 (RT) RAMP A	TRIB. TO	CRANE CREEK	600 RCP	0.00	0	0	0.05	0.02
10	50+59 - 52+80 (RT+LT) -L-	TRIB. TO	CRANE CREEK	1200 RCP	0.07	175	53	1.04	0.14
11	54+37 (LT) - 56+09 (RT+LT) -L-	TRIB. TO	CRANE CREEK	750 RCP	0.00	0	0	0.47	0.10
12	12+35 (LT) - 12+81 (LT+RT) - 13+37 (RT) -Y4-	TRIB. TO	CRANE CREEK	900 RCP CLASS IV	<0.01	42	0	0.10	0.01
13	10+39 (RT) - 11+11 (RT) -Y4-	TRIB. TO	CRANE CREEK	1350 RCP	<0.01	8	0	0.01	0.02

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO
NORTHEAST OF SR 1825.

SCALE AS SHOWN

SHEET 53 OF 58

AUG 1999

SUMMARY TABLE - R210A

SITE NO.	PROJECT STATION	STREAM NAME	TRIBUTARY TO	STRUCTURE SIZE	FILL IN SURFACE WATER	LENGTH OF EXISTING CHANNEL LOST	LENGTH OF CHANNEL CREATED	FILL IN WETLANDS	EXCAVATION IN WETLANDS	TEMP. IMPACT IN WETLANDS DUE TO MECHANICAL CLEARING BEYOND CONSTRUCTION LIMITS
				(mm)	(ha)	(m)	(m)	(ha)	(ha)	(ha)
14	16+13(RT) - 16+65(LT) - Y4-	TRIB. TO	CRANE CREEK	1050 RCP	<0.01	12	0	0.04	0.00	0.02
14a	59+10 (RT) - 60+20(LT) - L-	TRIB. TO	CRANE CREEK	600 RCP	0	0	0	.24	<.01	0.02
15	60+85(RT) - 61+39(LT) - L-	TRIB. TO	CRANE CREEK	1200 RCP	0.02	78	0	0.08	0	<0.01
16	64+35 - 65+05(LT+RT) - L-	TRIB. TO	CRANE CREEK	2.1X1.5 RCBC	0.04	183	0	0.28	<0.01	0.02
17	67+15(RT) - 68+50(LT) - L-	TRIB. TO	CRANE CREEK	1200 RCP	.18	68	0	0.13	<.01	0.02
18	71+59(LT) - 72+12(RT) - L-	TRIB. TO	CRANE CREEK	450 RCP	0	0	0	0.16	0	<0.01
18a	72+48 - 73+00 - L-	TRIB. TO	CRANE CREEK	450 RCP	0	0	0	.21	0	<.01
18b	74+05 (LT) - 74+60 (RT) - L-	TRIB. TO	CRANE CREEK	600 RCP	0	0	0	.12	0	<.01
19	76+25(RT) - 76+57(RT) - L-	TRIB. TO	CRANE CREEK	1050 RCP	<0.01	79	0	0.02	0.00	<0.01
20	76+62(RT) - 77+11(RT) - L-	TRIB. TO	CRANE CREEK	600 RCP	0.00	0	0	0.04	0.00	0.02
21	78+20(RT) - 80+68(RT) - L- 81+16(RT) - 82+22(LT) - L-	CRANE CREEK	LITTLE CREEK	1 @ 22m, 1 @ 30m, & 2 @ 28m SPAN BRIDGE	0.03	68	0	0.47	<0.01	0.07
22	83+26(LT) - 86+20(RT) - L-	TRIB. TO	CRANE CREEK	900 RCP	<0.01	13	0	0.33	0.00	<0.01
22a	87+50(LT) - 87+78(LT) - L-	TRIB. TO	CRANE CREEK	600 RCP	0	0	0	0.07	<.01	<.01
23	89+66 - 90+03(LT+RT) - L-	TRIB. TO	LITTLE CREEK	750 RCP	0.00	0	0	0.12	<0.01	<0.01

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

B.T560302

R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO
NORTHEAST OF SR 1825.

SCALE AS SHOWN

SHEET 54 OF 58

AUG 1999

SUMMARY TABLE - R210A

SITE NO.	PROJECT STATION	STREAM NAME	TRIBUTARY TO	STRUCTURE SIZE	FILL IN SURFACE WATER	LENGTH OF EXISTING CHANNEL LOST	LENGTH OF CHANNEL CREATED	FILL IN WETLANDS	EXCAVATION IN WETLANDS	TEMP. IMPACT IN WETLANDS DUE TO MECHANICAL CLEARING BEYOND CONSTRUCTION LIMITS (ha)
24	91+21 - 91+89(LT+RT)-L-	TRIB. TO	LITTLE CREEK	600 RCP	0.25**	0	0	0.00	0.00	0.00
25	94+70 - 95+20(LT+RT)-L-	TRIB. TO	LITTLE CREEK	1200 CS	0.03	155	0	0.25	0.01	0.02
				TOTALS	.65ha	987m	59 m	8.65ha	0.06 ha	.92 ha

* TOTAL OF 2.38 ha. OF IMPACT TO SURFACE WATERS DUE TO DRAINING POND. (INCLUDES FILL)

** TOTAL OF .48 ha. OF IMPACT TO SURFACE WATERS DUE TO DRAINING POND. (INCLUDES FILL)

*** ADDITIONAL 0.08 ha. OF IMPACT TO WETLANDS DUE TO DRAINING ADJACENT WETLANDS

Site No. 1 and Site No. 21 are both below Headwaters

**** ADDITIONAL 0.01 ha. OF IMPACT TO WETLANDS DUE TO DRAINING ADJACENT WETLANDS

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE COUNTY

8.T560302

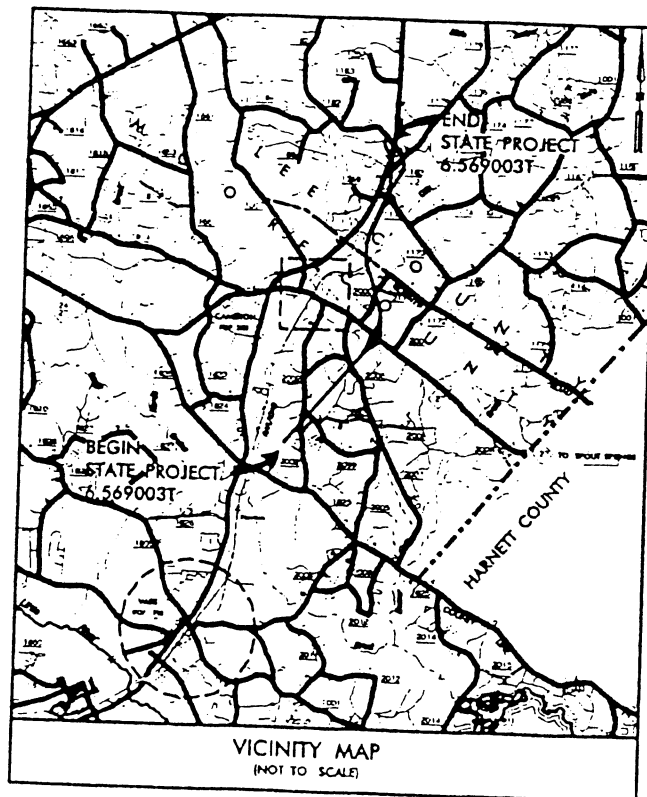
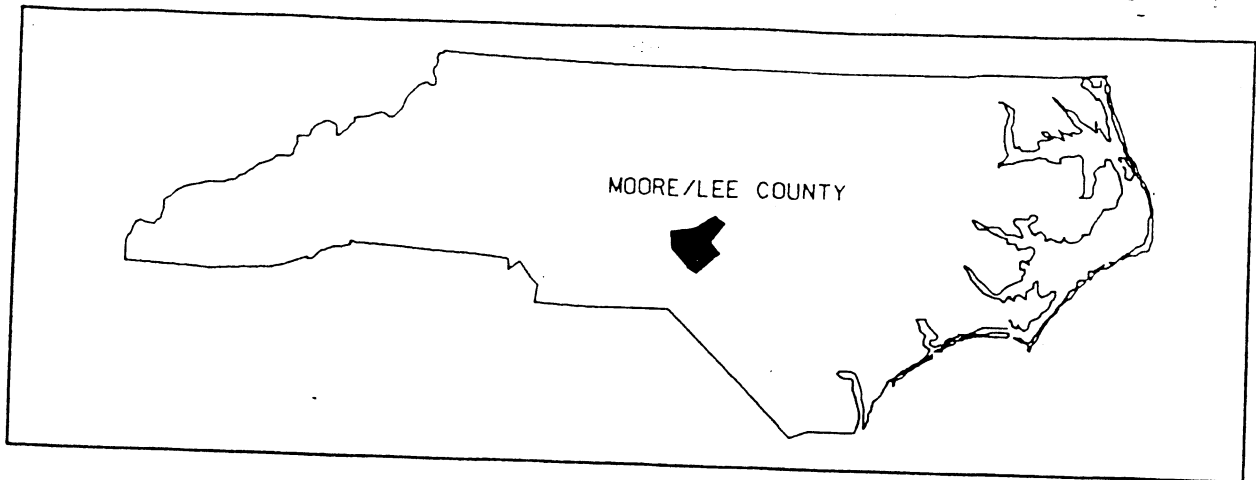
R-210A

PROPOSED GRADING, PAVING, DRAINAGE, FENCING
CULVERTS, STRUCTURES, SIGNING, PAVEMENT
MARKINGS, AND SIGNALS ON PROPOSED U.S. 1
BYPASS FROM SR 2175 AT LAKEVIEW TO
NORTHEAST OF SR 1825.

SCALE AS SHOWN

SHEET 55 OF 58

AUG 1999

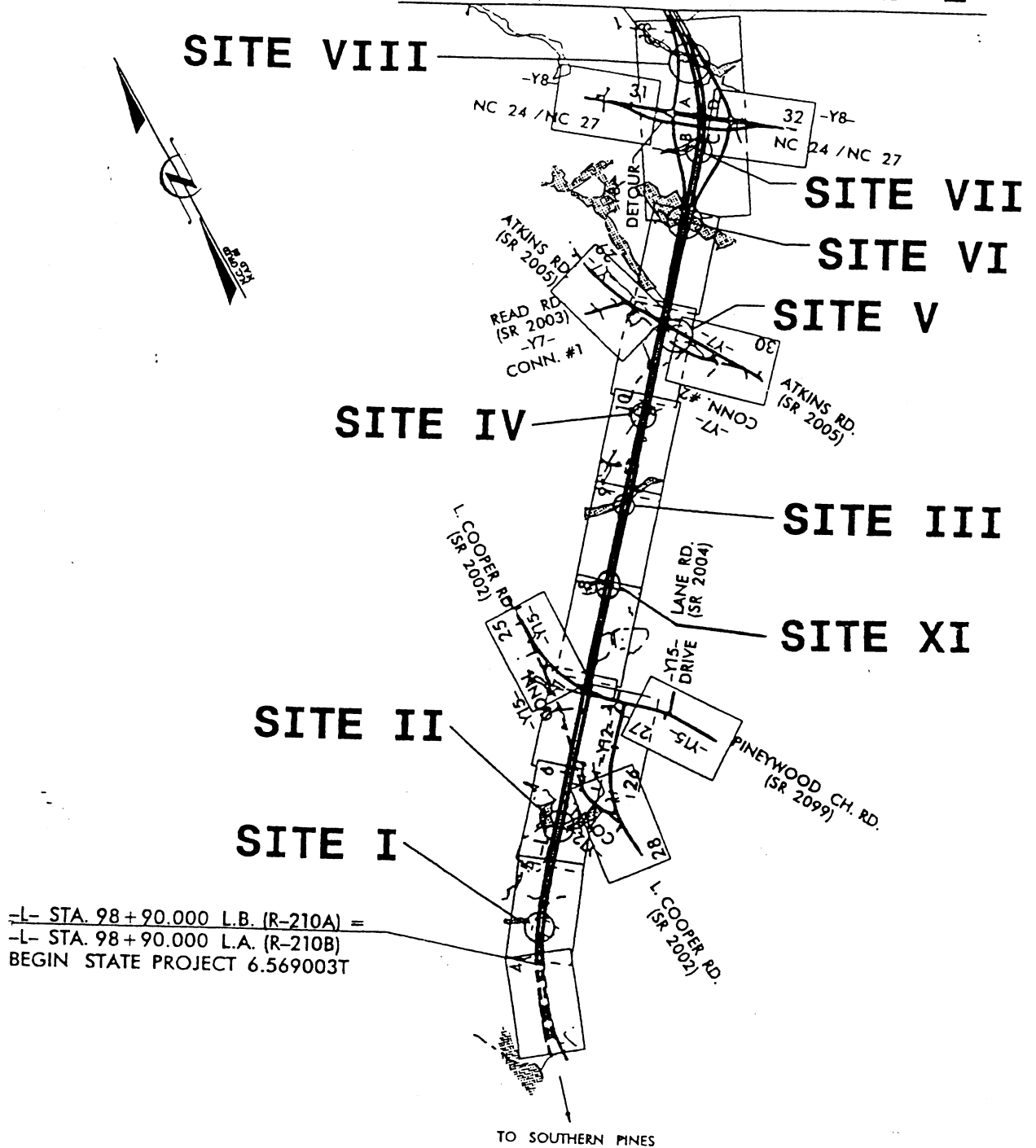


VICINITY MAPS

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182

MATCHLINE SITE MAP 2

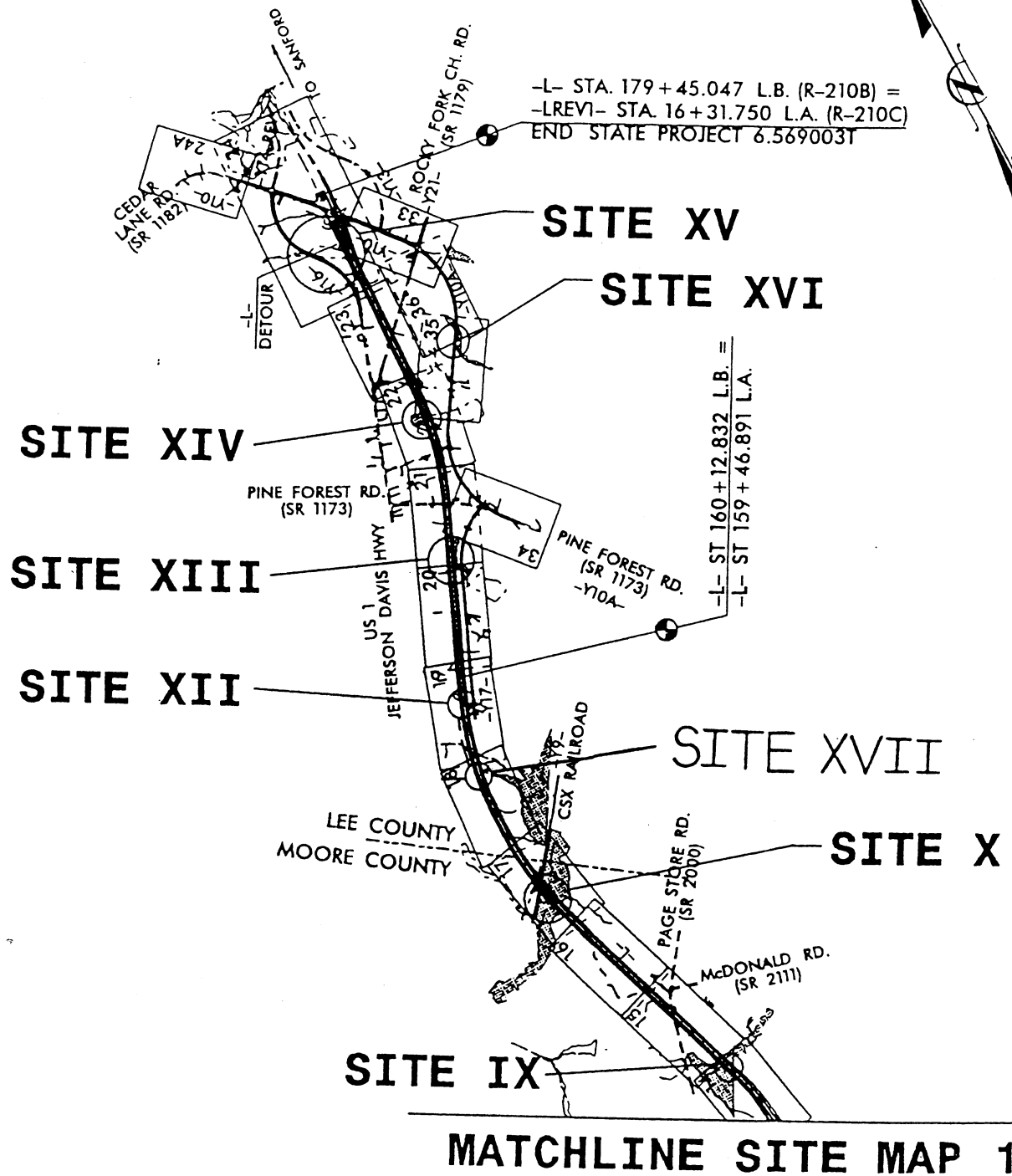


SITE MAP 1

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 MOORE/LEE COUNTY
 PROJECT: 6.569003T (R-210B)

US 1 FORM NORTH OF SR 1825
 TO NORTH OF SR 1182

SHEET 2 OF 37 8/2/99



SITE MAP 2

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 MOORE/LEE COUNTY
 PROJECT: 6.569003T (R-210B)

US 1 FROM NORTH OF SR 1825
 TO NORTH OF SR 1182

SHEET 3 OF 37 8/2/99

LEGEND

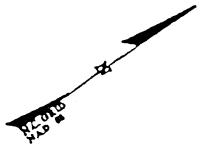
	WETLAND BOUNDARY
	WETLAND
	DENOTES FILL IN WETLAND
	DENOTES FILL IN SURFACE WATER
	DENOTES FILL IN SURFACE WATER (POND)
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES EXCAVATION IN WETLAND
	DENOTES TEMPORARY FILL IN SURFACE WATER
	DENOTES MECHANIZED CLEARING
	FLOW DIRECTION
	TOP OF BANK
	EDGE OF WATER
	PROP. LIMIT OF CUT
	PROP. LIMIT OF FILL
	PROP. RIGHT OF WAY
	NATURAL GROUND
	PROPERTY LINE
	TEMP. DRAINAGE EASEMENT
	PERMANENT DRAINAGE EASEMENT
	EXIST. ENDANGERED ANIMAL BOUNDARY
	EXIST. ENDANGERED PLANT BOUNDARY
	WATER SURFACE

	LIVE STAKES
	BOULDER
	COIR FIBER ROLLS
	ADJACENT PROPERTY OWNER OR PARCEL NUMBER
	PROPOSED BRIDGE
	PROPOSED BOX CULVERT
	PROPOSED PIPE CULVERT
(DASHED LINES DENOTE EXISTING STRUCTURES)	
	SINGLE TREE
	WOODS LINE
	DRAINAGE INLET
	ROOTWAD
	VANE
	RIP RAP
	RIP RAP ENERGY DISSIPATOR BASIN

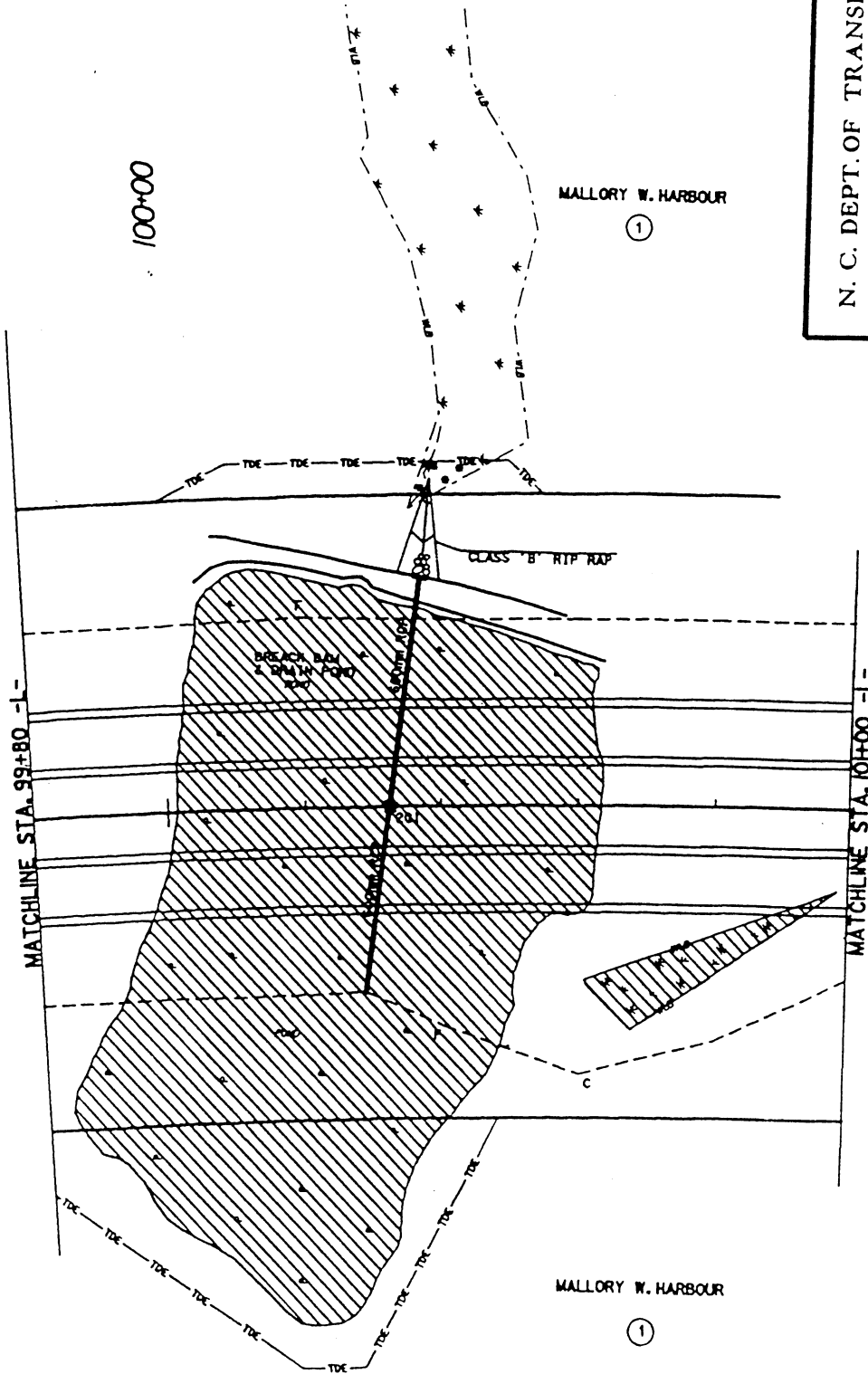
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)

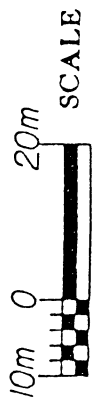


100+00



N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY
PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR. 1825
TO NORTH OF SR 1182
SHEET 5 OF 37 8/2/99

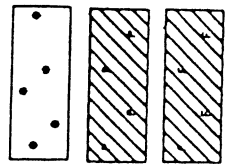
PLAN VIEW
SITE I

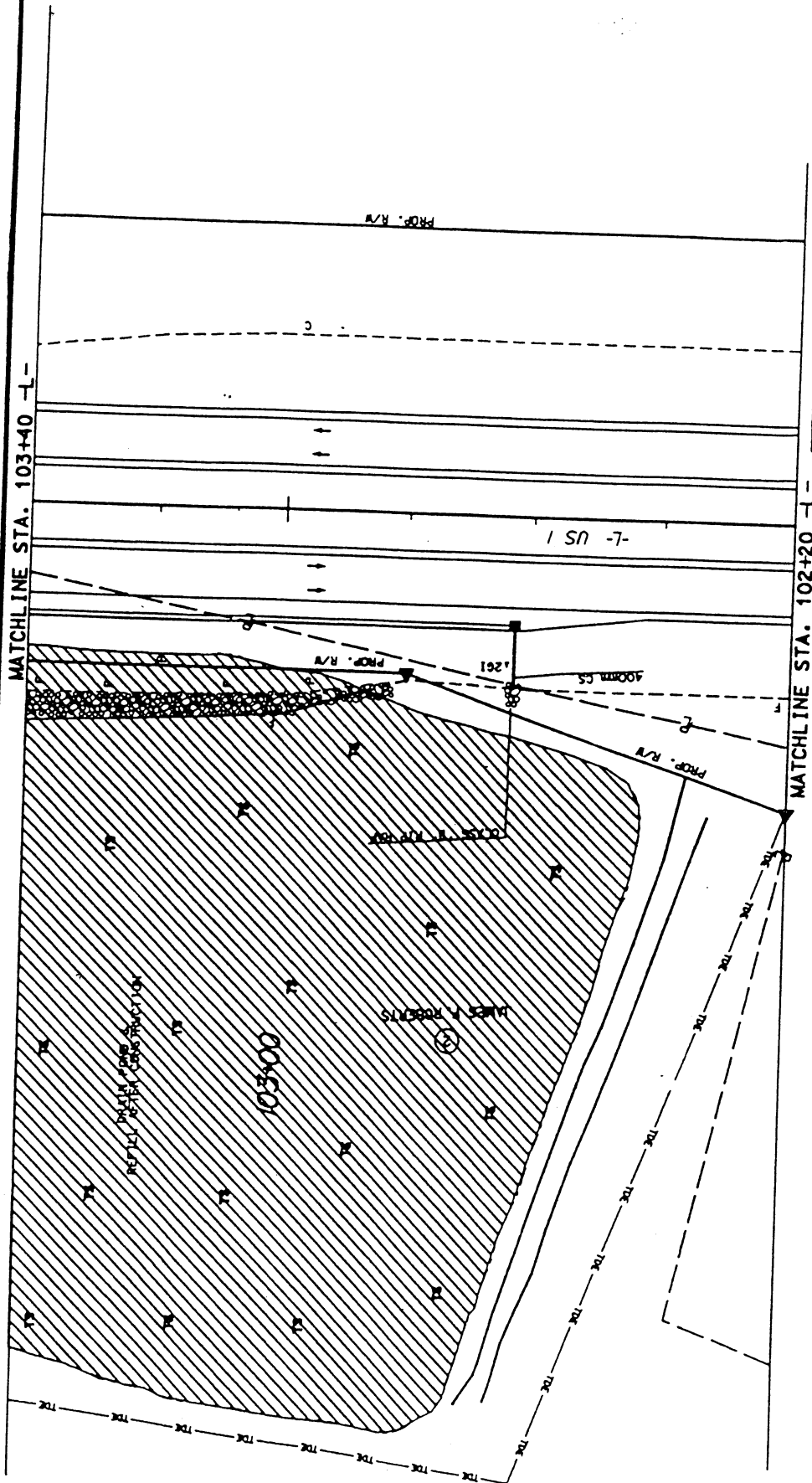


DENOTES MECHANIZED CLEARING

DENOTES FILL IN SURFACE WATERS (POND)

DENOTES FILL IN WETLANDS

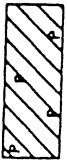




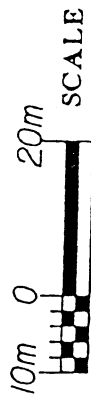
PLAN VIEW SITE II



DENOTES SURFACE TEMP.
WATER IMPACTS



DENOTES FILL IN SURFACE WATERS (POND)



N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)

US 1 FROM NORTH OF SR 1825'
TO NORTH OF SR 1182

SHEET 7 OF 37 8/2/99

121+00

CLINTON & KAY PEELE

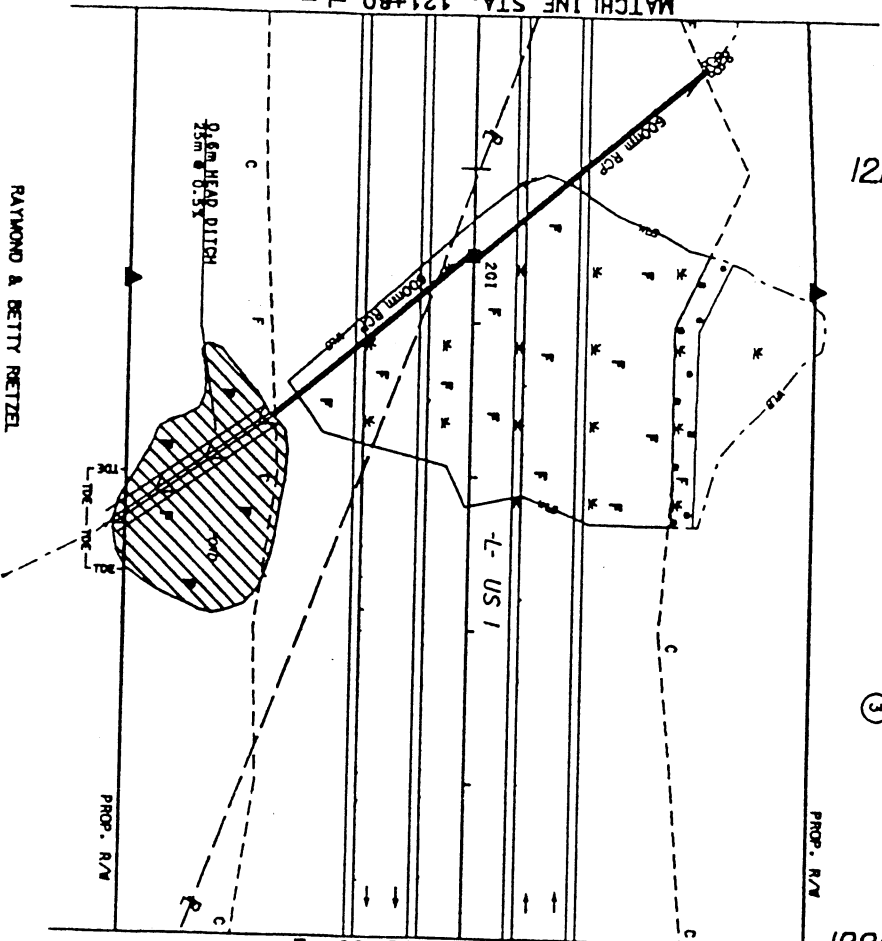
(3)

PROP. R/W

00+221

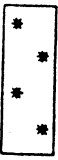
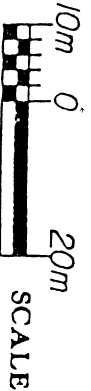
MATCHLINE STA. 121+80 L-

MATCHLINE STA. 122+00 L-

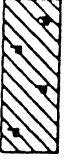


RAYMOND & BETTY REITZEL
(6)

PLAN VIEW SITE IV



DENOTES MECHANIZED CLEARING



DENOTES FILL IN SURFACE WATERS (POND)



DENOTES FILL IN WETLANDS

N. C. DEPT. OF TRANSPORTATION

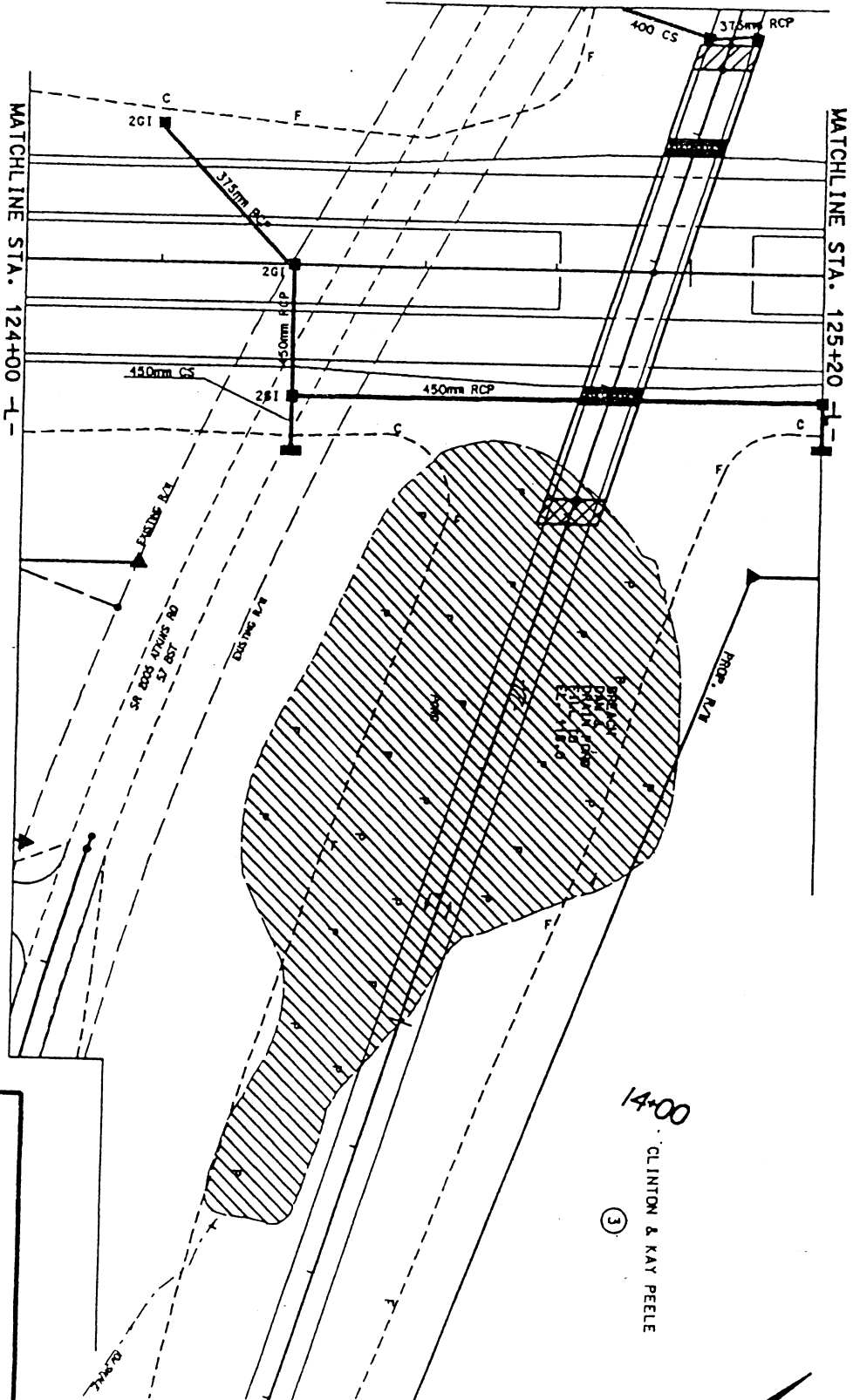
DIVISION OF HIGHWAYS

MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)

US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182

SHEET 8 OF 37 8/2/99



PLAN VIEW SITE V

DENOTES FILL IN SURFACE WATERS (POND)

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)

US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182

SHEET 10 OF 37 8/2/99

MATCHLINE STA. 128+40 -L-

-L- US 1

600m RCP

RAMP C

RAMP B

600m RCP

129+00

1+00

130+00

400 CS

201

400m CS

201

RAMP B

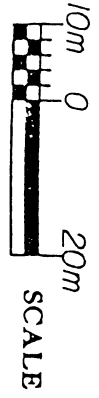
RAMP C

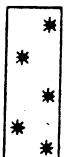


600m RCP

MATCHLINE STA. 130+40 -L-



PLAN VIEW SITE VI



-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN SURFACE WATERS
-  DENOTES FILL IN WETLANDS

CLINTON & KAY PEELE
③

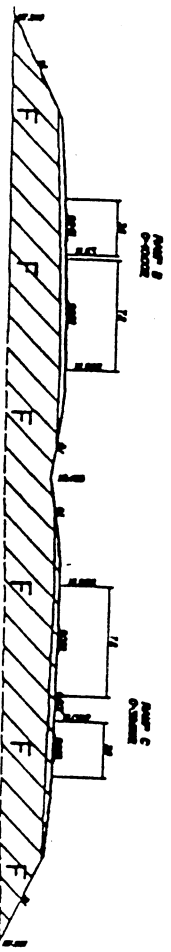
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)

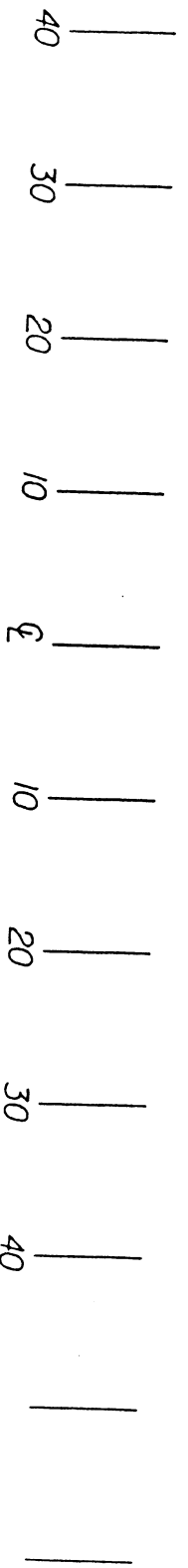
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182

118
289

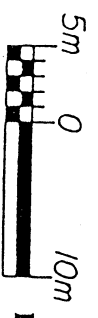
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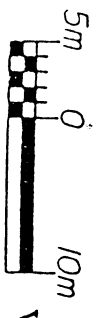
129+20.000



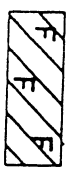
SECTION



HORIZONTAL SCALE



VERTICAL SCALE



DENOTES FILL
IN WETLANDS

N. C. DEPT. OF TRANSPORTATION

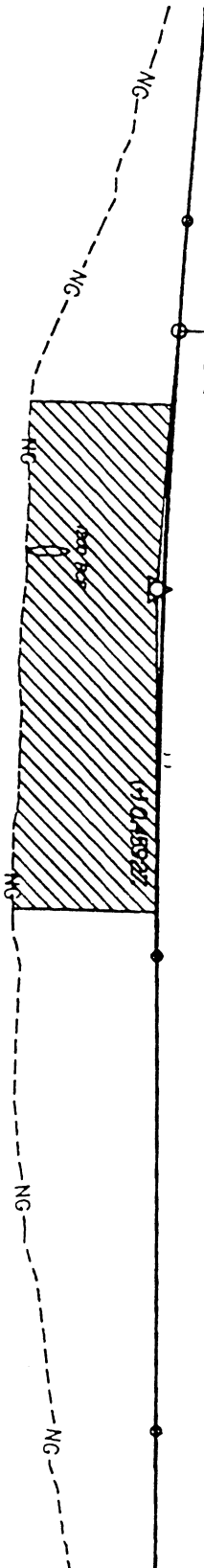
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR 1835
TO NORTH OF SR 1182

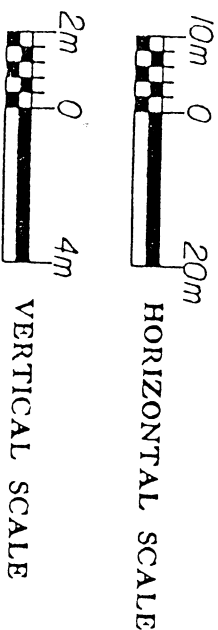
SHEET 12 OF 37 8/2/99

PI STA 129+15.000
 EI - 111.074
 VC - 100.000
 K - 59
 DS - 110 km/h

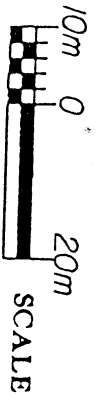
+L STA 128+80.000 -
 RAMP B STA 0+00.000
 (14200 LT)
 EL - 111.524



PROFILE



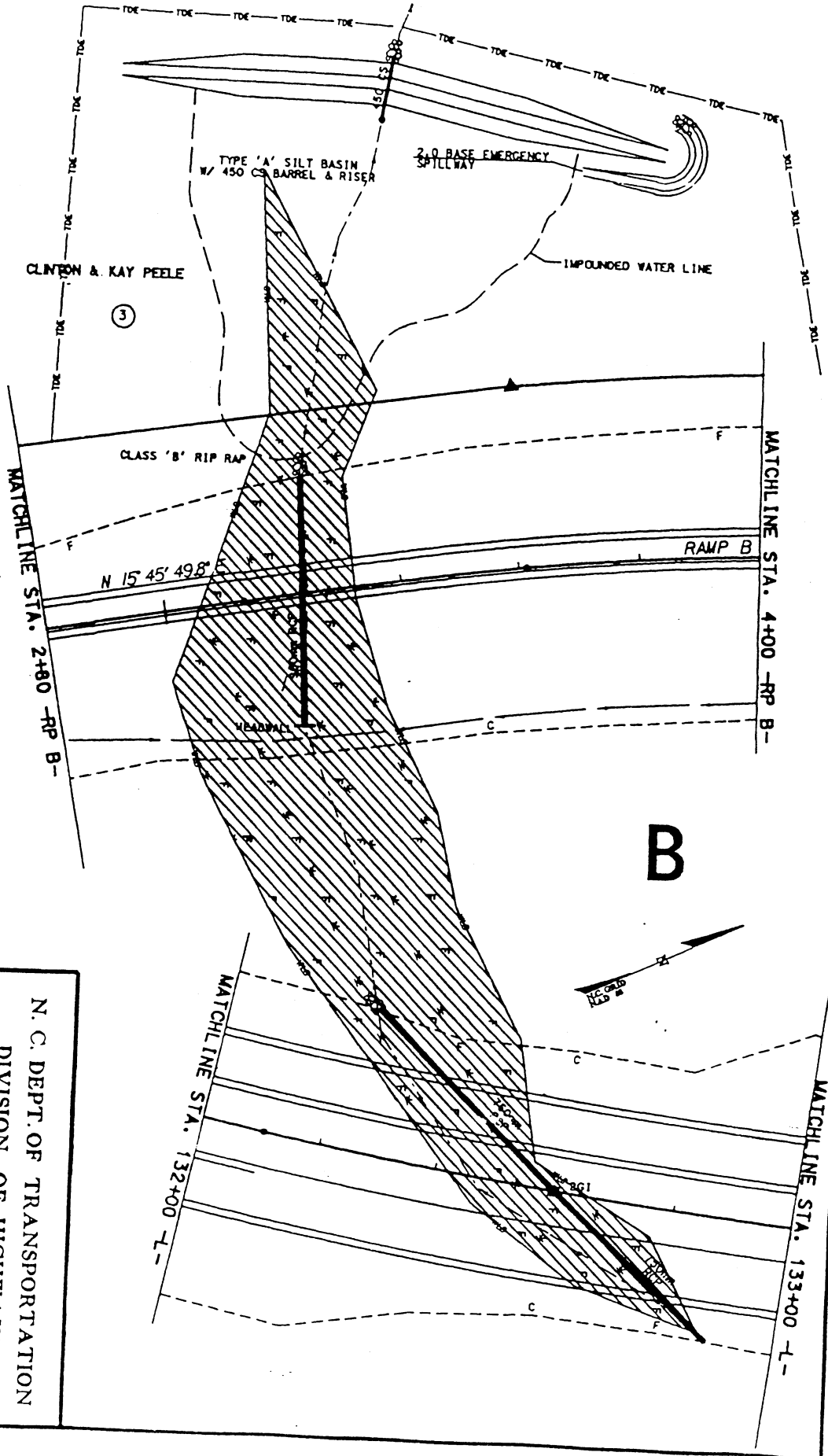
N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 MOORE/LEE COUNTY
 PROJECT: 6.569003T (R-210B)
 US 1 FROM NORTH OF SR 1825
 TO NORTH OF SR 1182



PLAN VIEW
SITE VII

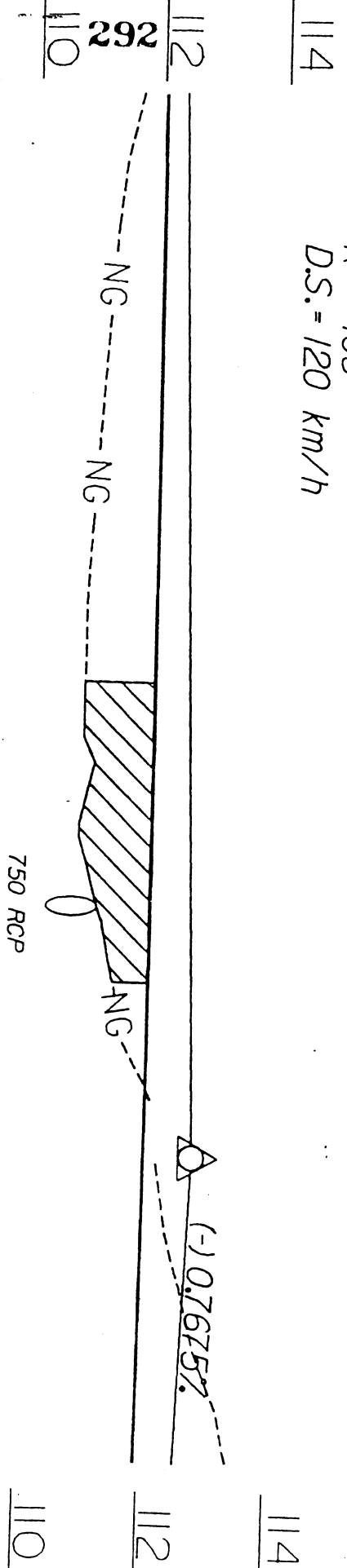


DENOTES FILL IN WETLANDS



N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY
PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182
SHEET 14 OF 37 8/2/99

P1 STA 132+80.000
 EI = 112.750
 VC = 500.000
 K = 408
 D.S. = 120 km/h



PROFILE



DENOTES FILL
 IN WETLANDS

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 MOORE/LEE COUNTY
 PROJECT: 6.569003T (R-210B)
 US 1 FROM NORTH OF SR 1825
 TO NORTH OF SR 1182
 SHEET 15 OF 37 8/2/99

116

114

112

293
110

108

116

114

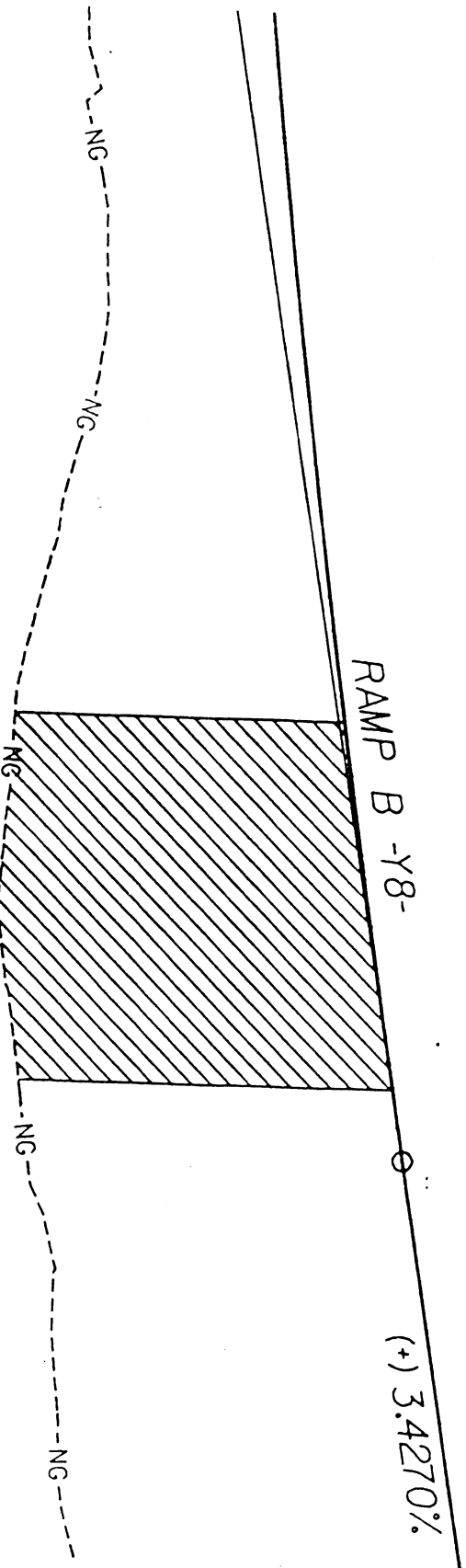
112

110

108

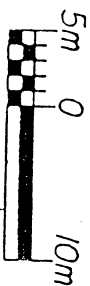
RAMP B -Y8-

(+) 3.4270%



3+00

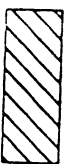
PROFILE



HORIZONTAL SCALE



VERTICAL SCALE



DENOTES FILL
IN WETLANDS

N. C. DEPT. OF TRANSPORTATION

DIVISION OF HIGHWAYS

MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)

US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182

SHEET 16 OF 37 8/2/99

118
294

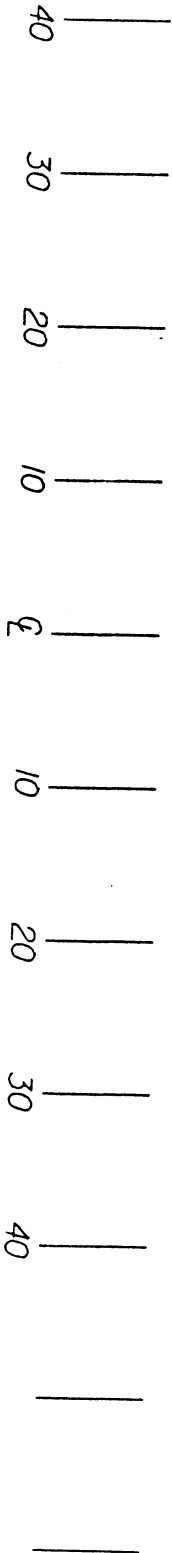
108



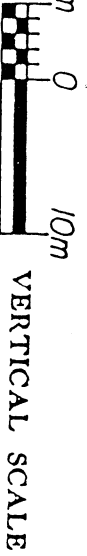
132+40.000

108

118



SECTION



N. C. DEPT. OF TRANSPORTATION

DIVISION OF HIGHWAYS

MOORE / LEE COUNTY

PROJECT: 6.569003T (R-210B)

US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182

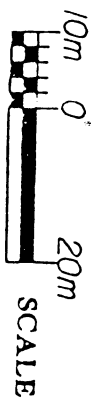
SHEET 17 OF 37 8/2/99

295
536-00

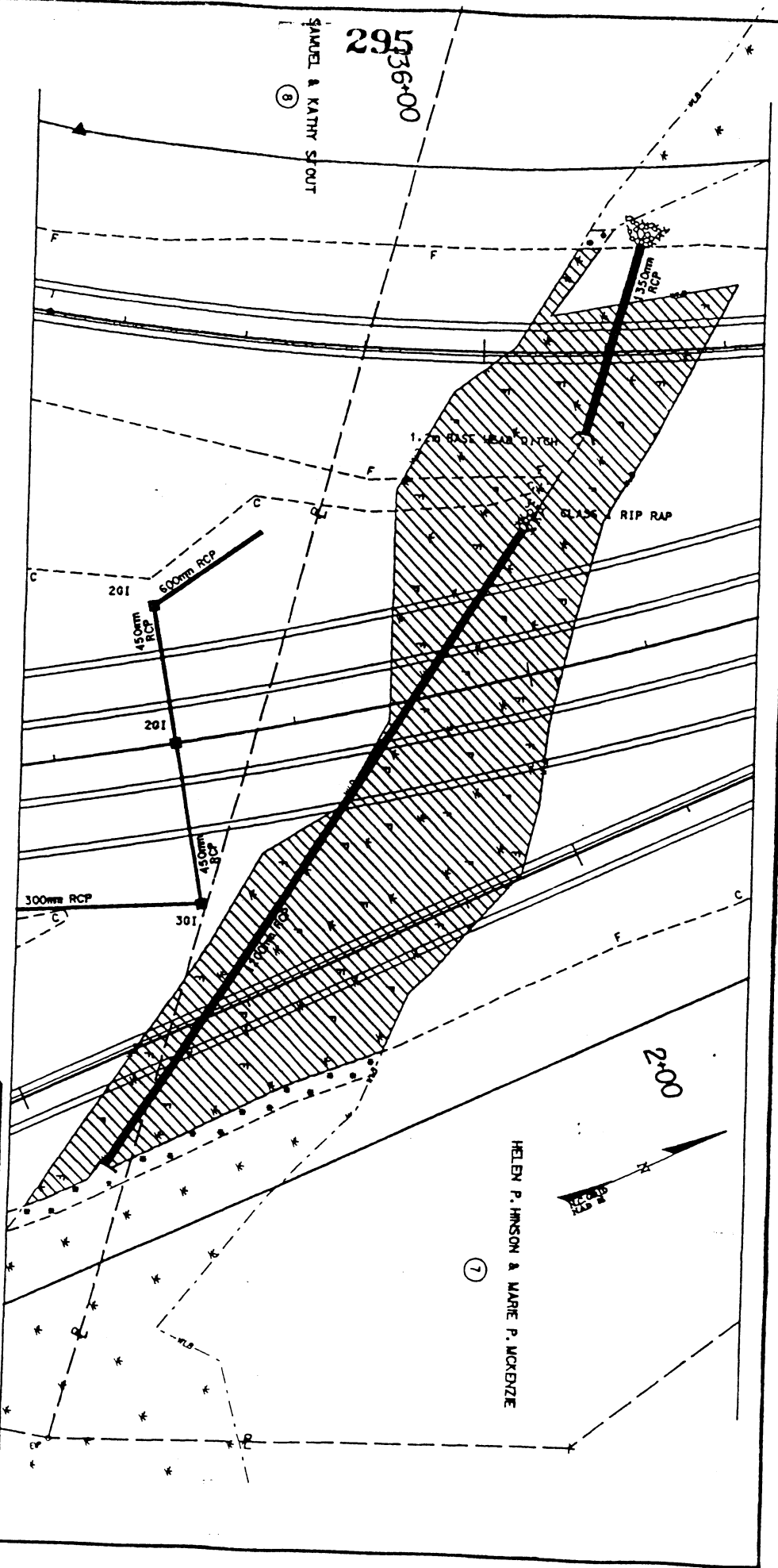
SAMUEL & KATHY SCOUT

(8)

PLAN VIEW SITE VIII



- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLANDS

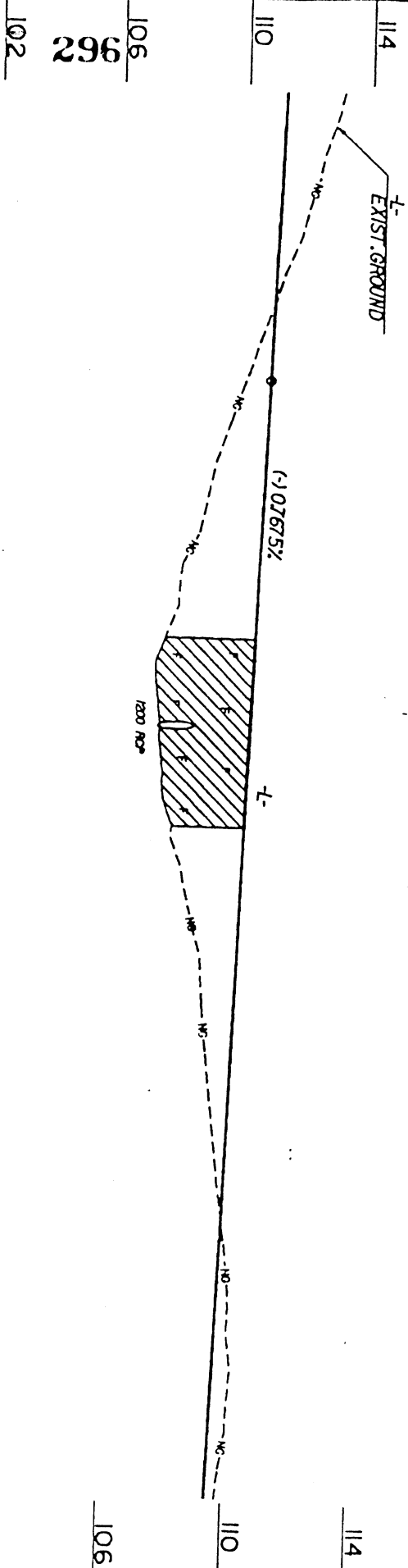


200

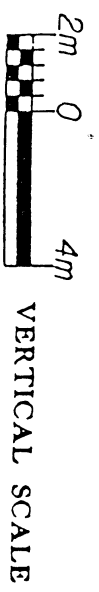
HELEN P. JINSON & MARE P. MCKENZIE

(7)

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY
PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182
SHEET 8 OF 37 8/2/99



PROFILE



DENOTES FILL
IN WETLANDS

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY
PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182
SHEET 19 OF 37 8/2/99

118 297

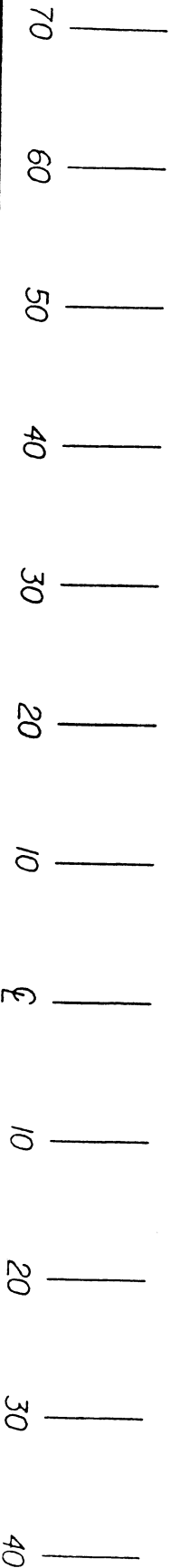
RAMP A
2+99.799

RAMP D
1+99.231

118



136+00.000



SECTION



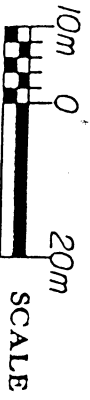
DENOTES FILL
IN WETLANDS




N. C. DEPT. OF TRANSPORTATION

DIVISION OF HIGHWAYS
MOORE/LEE COUNTY

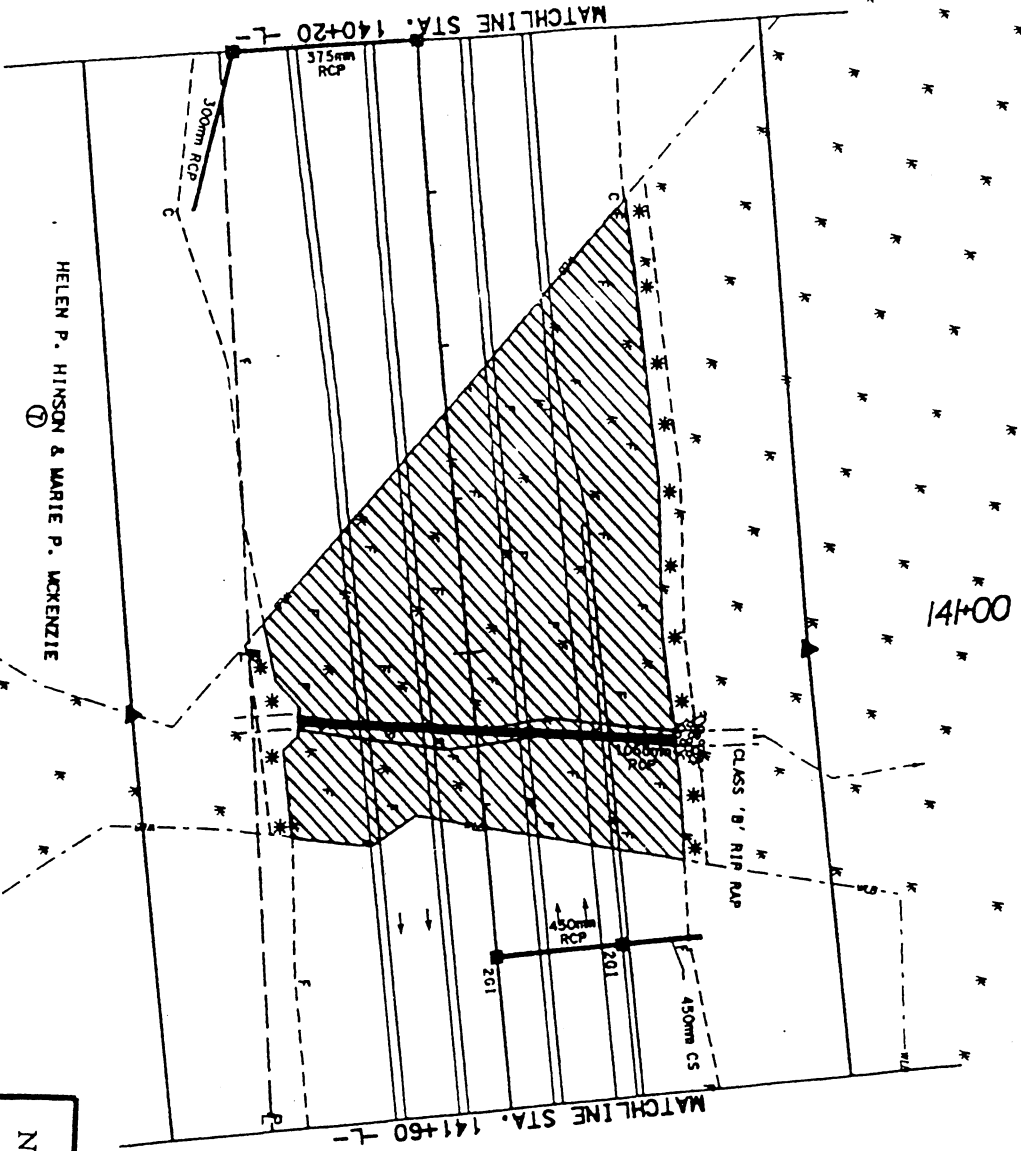
PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182

SHEET 20 OF 37 8/2/99



-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN SURFACE WATERS
-  DENOTES FILL IN WETLANDS

HELEN P. HINSON & MARIE P. MCKENZIE
⑦



PLAN VIEW SITE IX



N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY
PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182
SHEET 21 OF 37 8/2/99

299

150+00

HELEN P. HINSON & MARIE P. MCNEEDIE
⑦

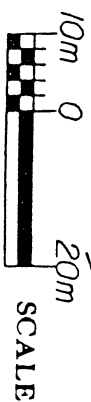


CSX RAILROAD
⑦

MOBILE
CONC. FILL

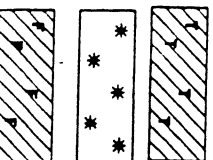
TEMP. WORK MAT

PLAN VIEW SITE X



10m
0
20m

SCALE



DENOTES TEMP. FILL IN WETLANDS
(WORK MAT)

DENOTES MECHANIZED CLEARING

DENOTES FILL IN WETLANDS

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY
PROJECT: 6.569003T (R210B)
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182
SHEET 23 OF 34 8/2/99

SITE II

LAT. 'V' DITCH
SEE DITCH DETAIL 'A'
SEE PROFILE

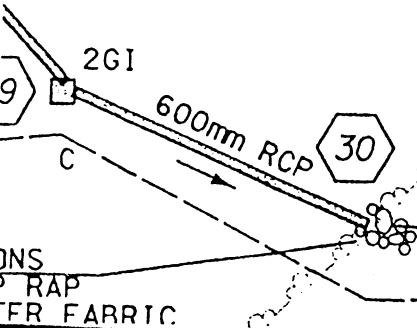
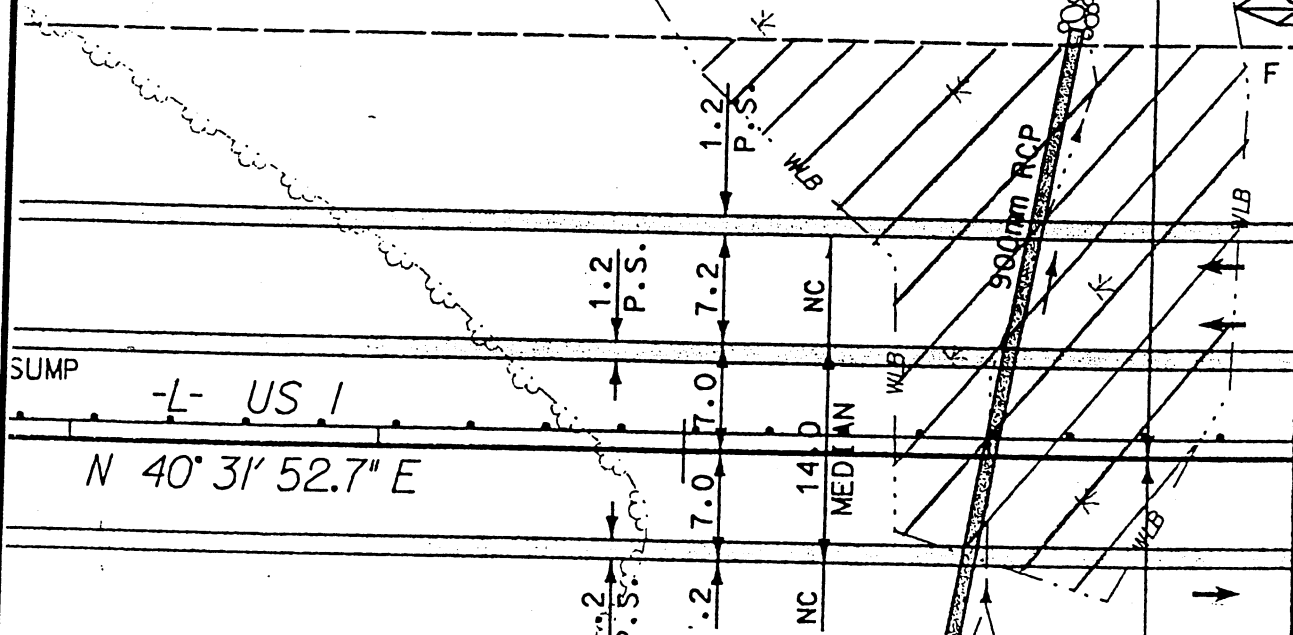
+85.000 -L-
45.000 (LT)

PROP. R/W



0.6 x 0.3
DITCH

EST. 10.0 m TONS
CLASS 'B' RIP RAP
W/ 24 m² FILTER FABRIC



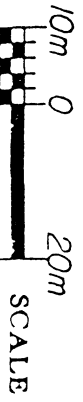
NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

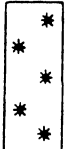
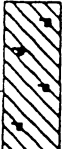

DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

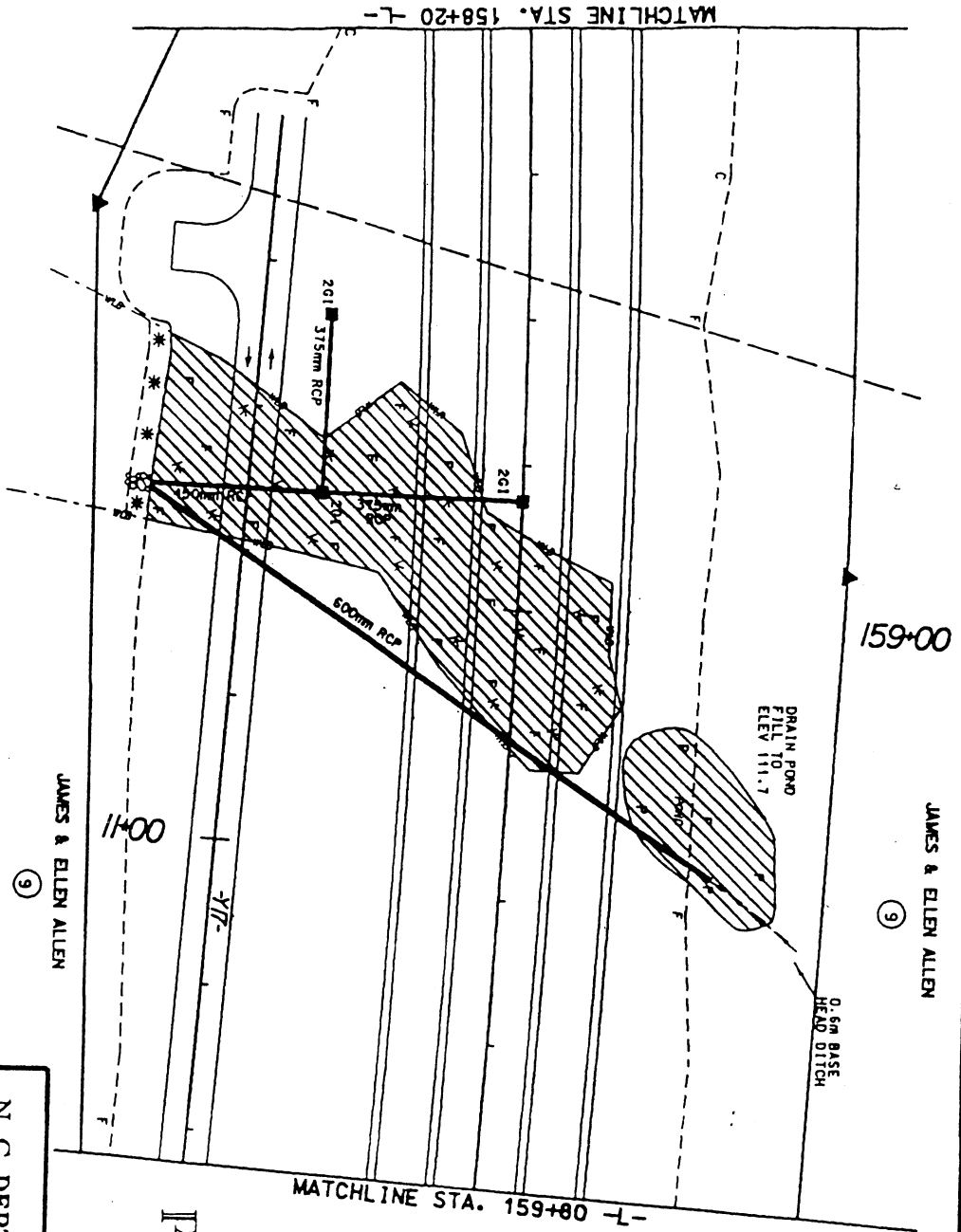
MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 1825 TO
NORTH OF SR 1182, R-210 B

SHEET 24 OF 37

MATCH LINE TO SHEET 9



-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN SURFACE WATERS (POND)
-  DENOTES FILL IN WETLANDS



PLAN VIEW SITE XII

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY
PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182
SHEET 25 OF 37 8/2/99

ARCHIE T. BROOKS
⑩

PROP. R/W

4

7

201

150mm RCP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

MATCHLINE STA. 163+00 L-

-L- US 1

1050mm RCP

ROAD

PROP. R/W

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

16+00

LEONARD PRINCE
⑪

CLASS 'B' RIP RAP

150mm RCP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

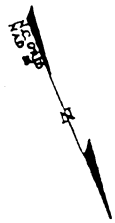
CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

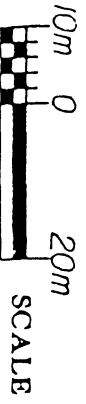
CLASS 'B' RIP RAP

CLASS 'B' RIP RAP

MATCHLINE STA. 164+80 L-



PLAN VIEW SITE XIII



DENOTES MECHANIZED CLEARING



DENOTES FILL IN WETLANDS

N. C. DEPT. OF TRANSPORTATION

DIVISION OF HIGHWAYS

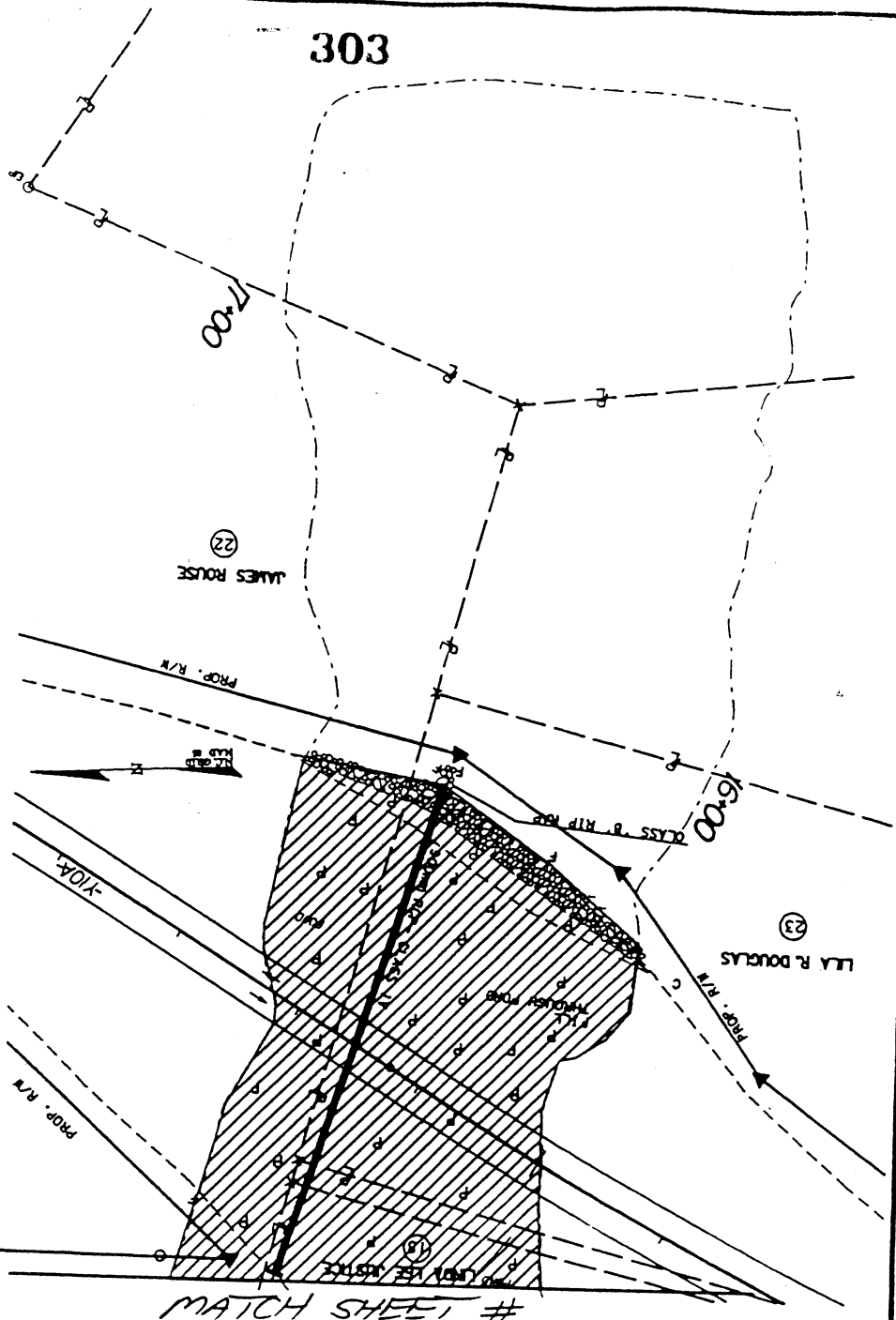
MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)

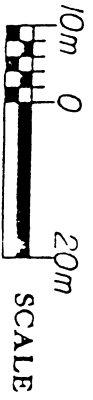
US 1 FORM NORTH OF SR 1825
TO NORTH OF SR 1182

SHEET 26 OF 37 8/2/99

303



PLAN VIEW SITE XIV CONT.

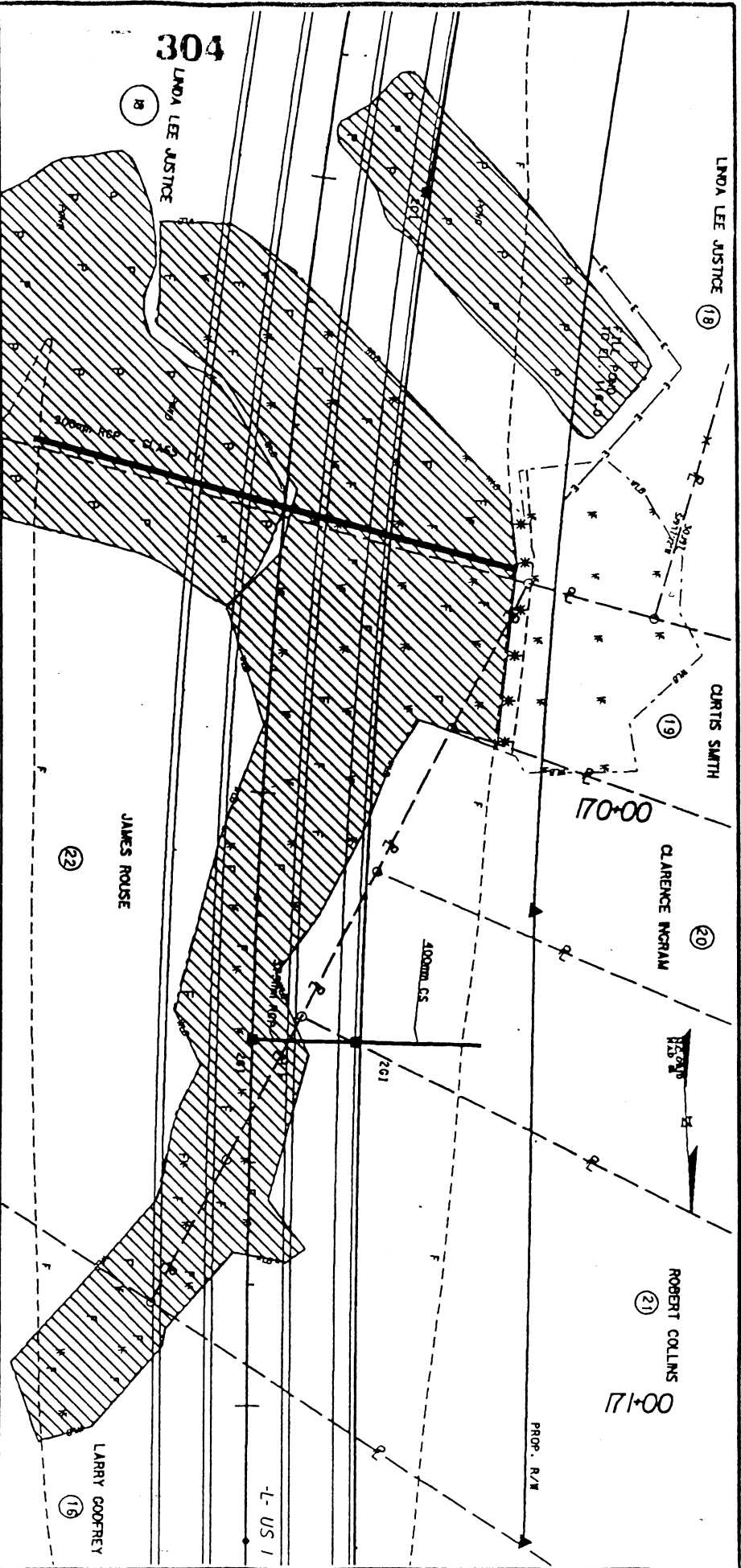


DENOTES FILL IN WETLANDS



DENOTES FILL IN SURFACE WATERS
(POND)

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
EDGEcombe COUNTY
PROJECT: 8.2990401 (U2218)
NC 43 BYPASS FROM
NC 43 TO US 64 ALT.
SHEET 27 OF 37
8/2/99



304

LINDA LEE JUSTICE

LINDA LEE JUSTICE

(18)

CURTIS SMITH

CLARENCE INGRAM

(20)

ROBERT COLLINS

(21)

JAMES ROUSE

(22)

LARRY COOFREY

(16)

170+00

171+00

400m CS

PROP. R/W

-L- US 1

MATCH SHEET #

PLAN VIEW SITE XIV



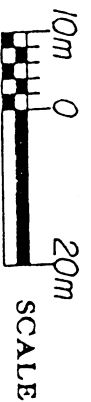
DENOTES MECHANIZED CLEARING



DENOTES FILL IN SURFACE WATERS (POND)



DENOTES FILL IN WETLANDS



N. C. DEPT. OF TRANSPORTATION

DIVISION OF HIGHWAYS

MOORE/LEE COUNTY

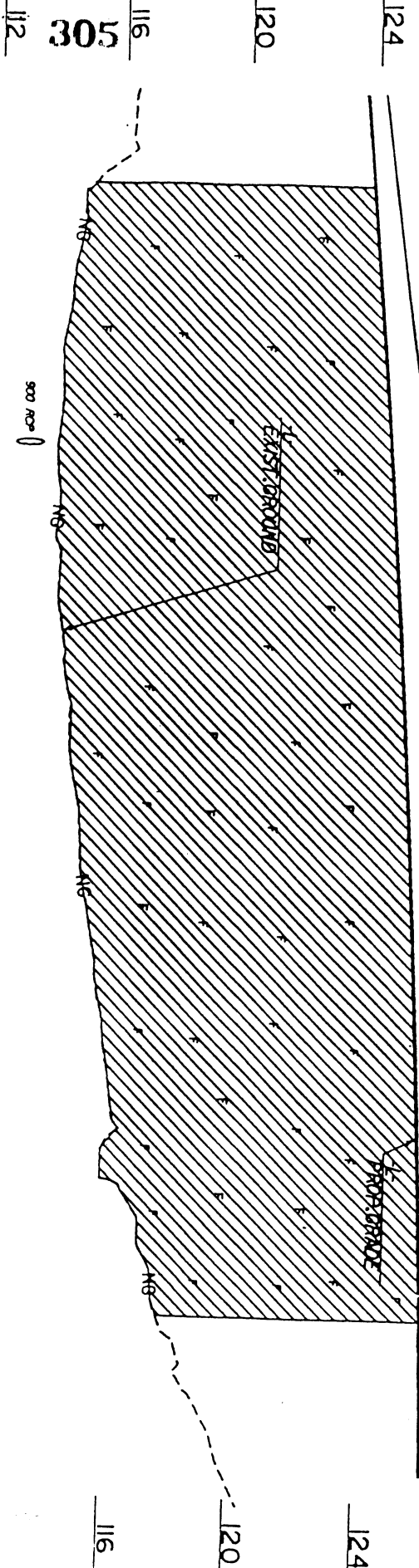
PROJECT: 6.569003T (R210B)

US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182

SHEET 28 OF 37 8/2/99

P1 STA 170+15.000
 E1 - 127.362
 VC - 500.000
 K - 154
 D.S. - 120 km/h

(-) 27.294% Δ (-) 0.5200%



PROFILE




 DENOTES FILL
 IN WETLANDS

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 MOORE/LEE COUNTY
 PROJECT: 6.569003T (R-210B)
 US 1 FROM NORTH OF SR 1825
 TO NORTH OF SR 1182

306

116

126

169+60.000

116

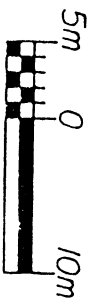
126

30

0

30

SECTION



HORIZONTAL SCALE



VERTICAL SCALE



DENOTES FILL
IN WETLANDS

N. C. DEPT. OF TRANSPORTATION

DIVISION OF HIGHWAYS

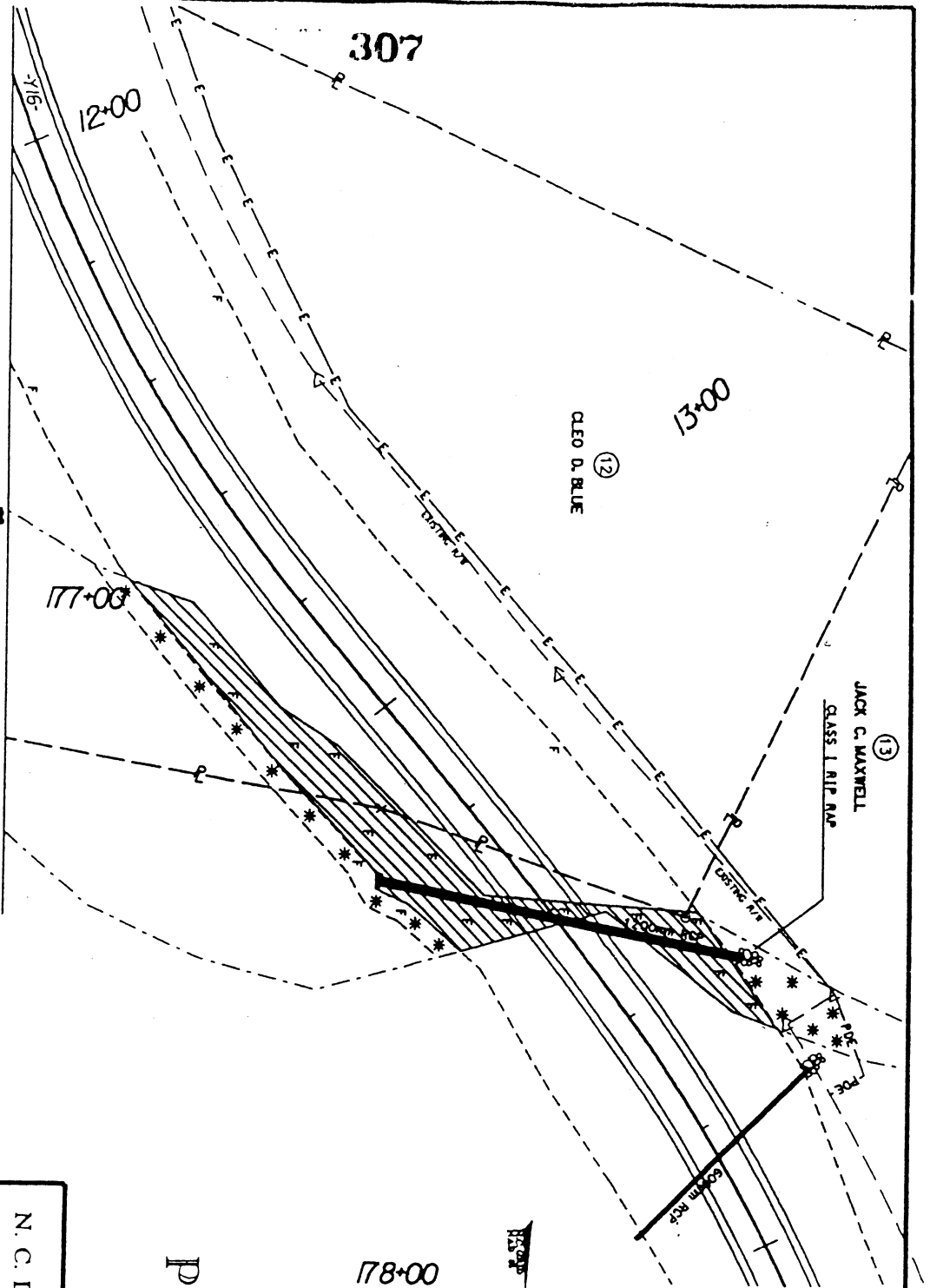
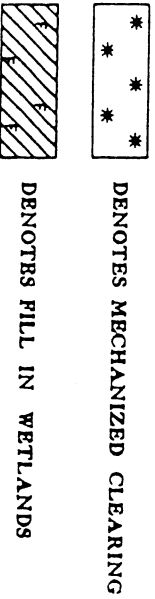
MOORE/LEE COUNTY

PROJECT: 6.569003T (R-210B)

US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182

SHEET 30 OF 37 8/2/99

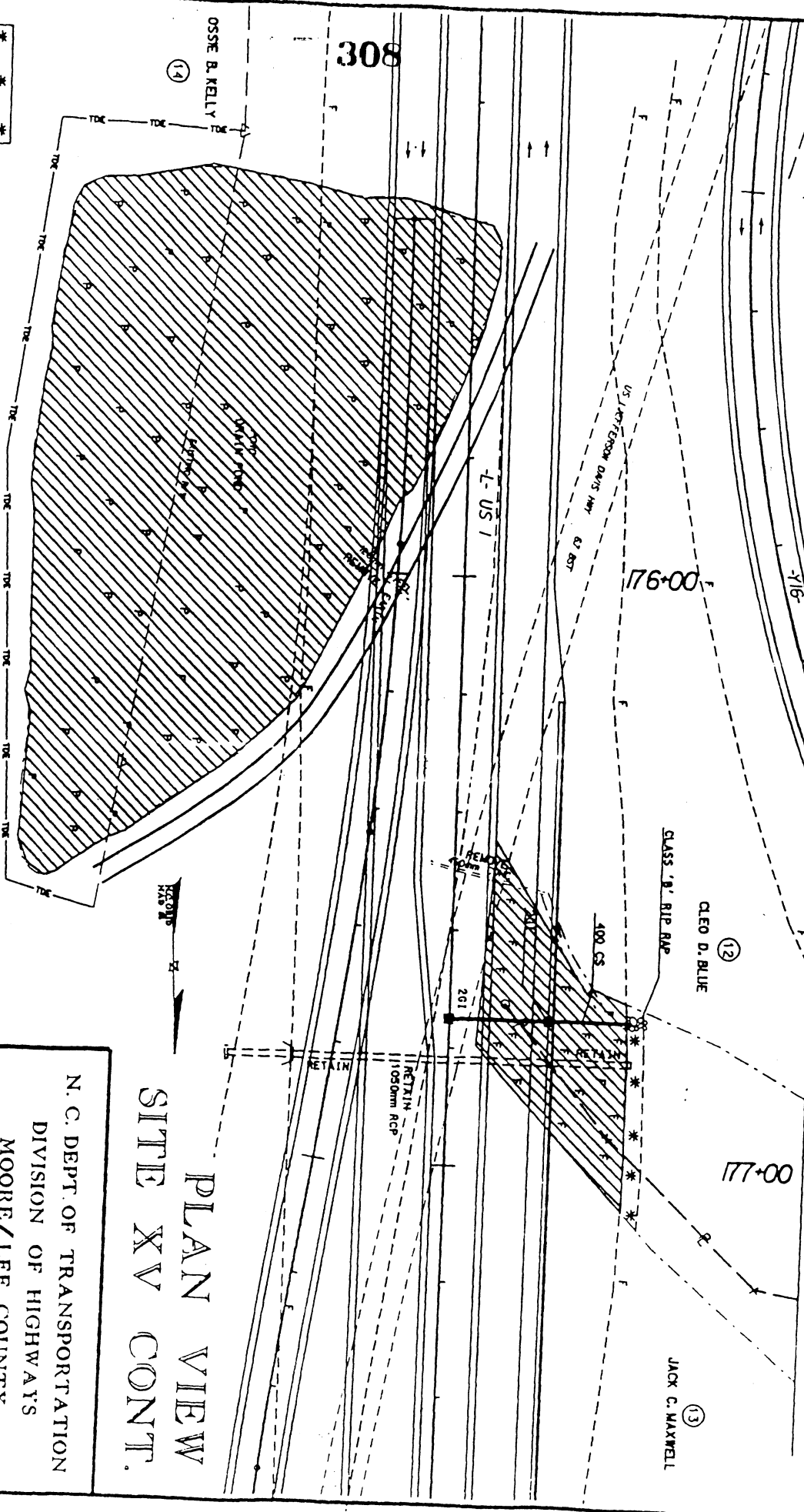
MATCH SHEET



PLAN VIEW SITE XV

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 MOORE/LEE COUNTY
 PROJECT: 6.569003T (R210B)
 US 1 FROM NORTH OF SR 1825
 TO NORTH OF SR 1182
 SHEET 31 OF 37 8/2/99

MATCH SHEET



DENOTES MECHANIZED CLEARING

5m 0 10m

SCALE

DENOTES FILL IN WETLANDS

DENOTES FILL IN SURFACE WATERS (POND)

PLAN VIEW SITE XV CONT.

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY

PROJECT: 6.569003T (R210B)

US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182.

SHEET 32 OF 37 8/2/99

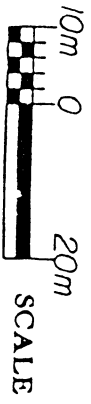
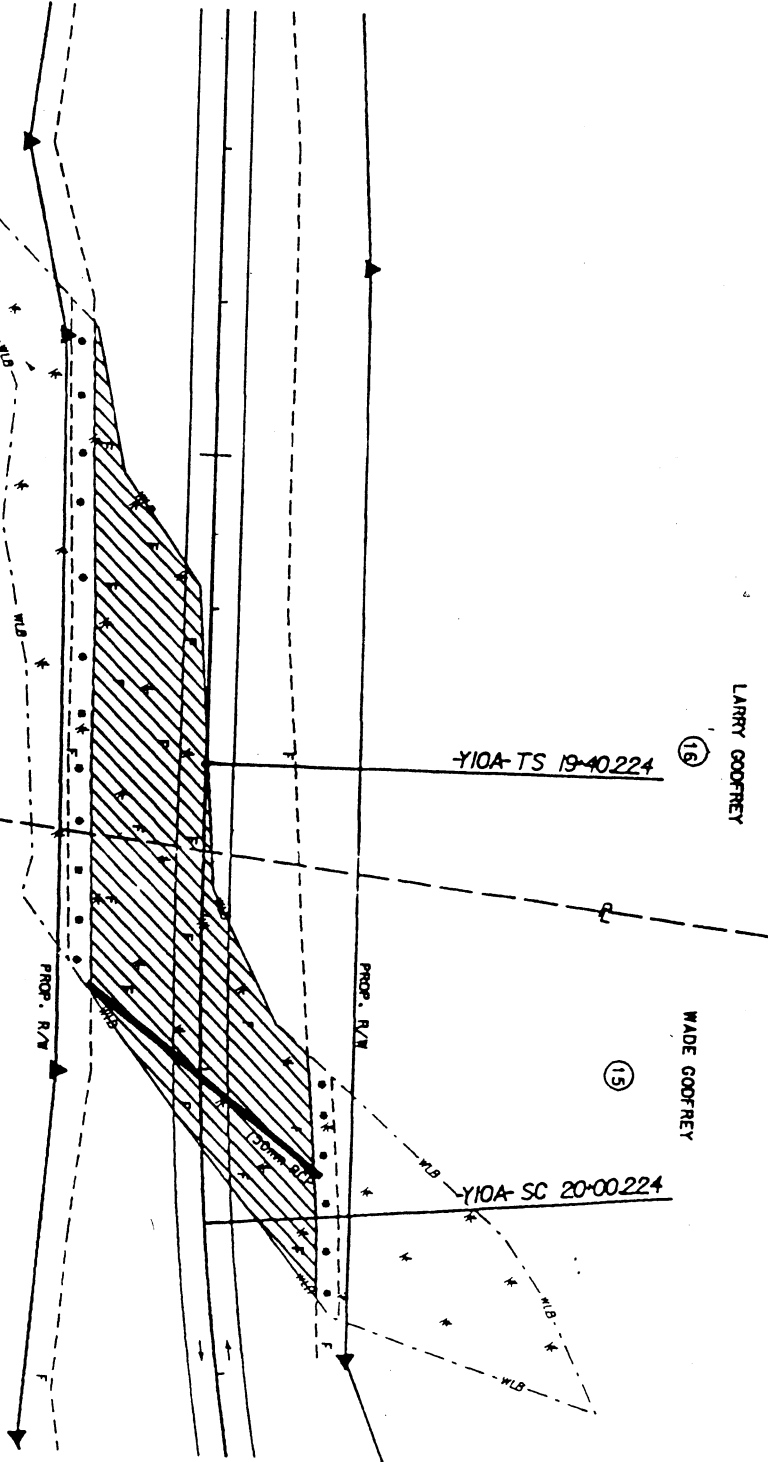
PLAN VIEW SITE XVI

LARRY GODFREY

WADE GODFREY

-Y10A-TS 19-40.224

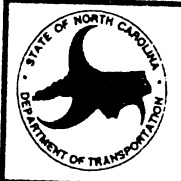
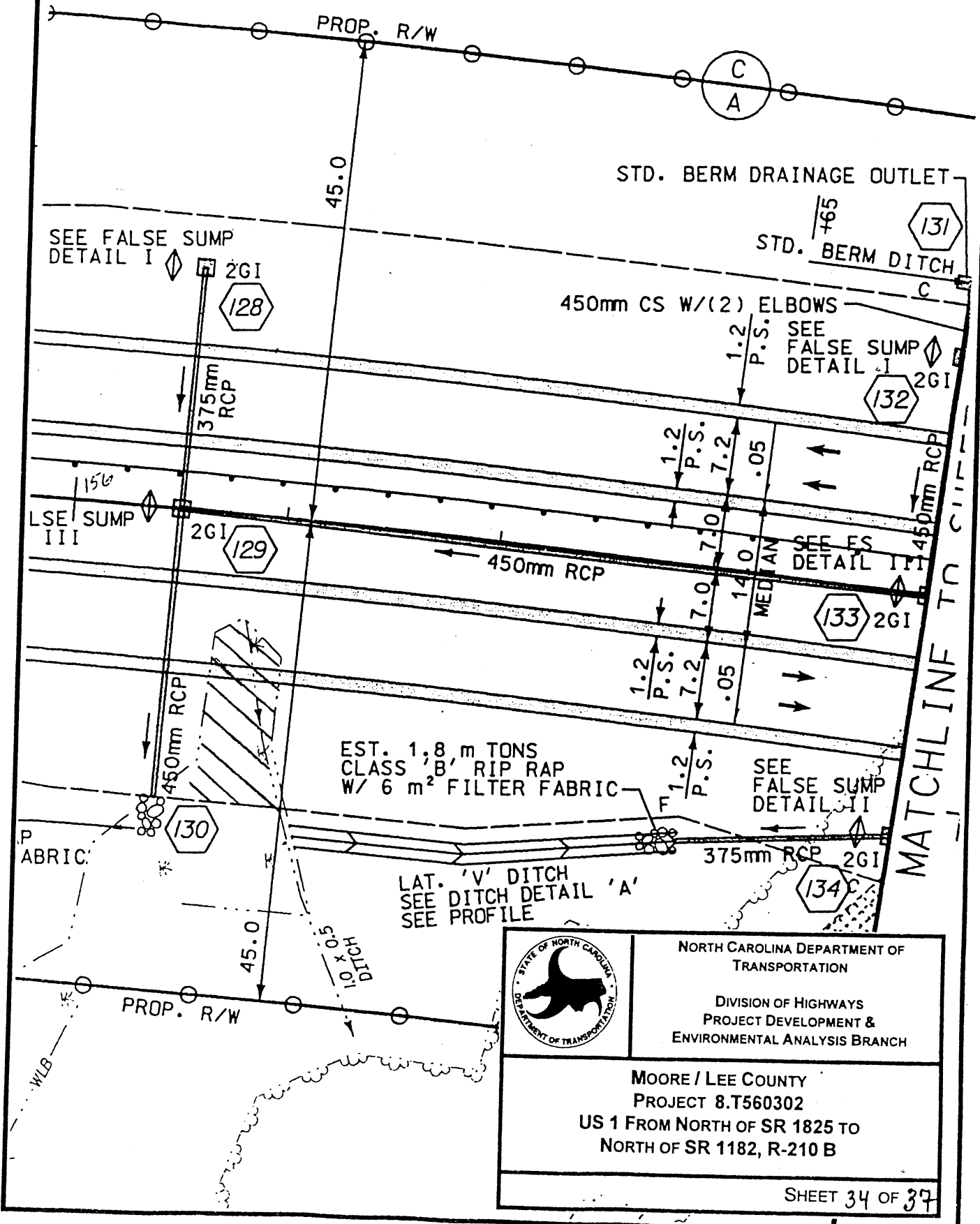
-Y10A-SC 20-00.224



- • • • • DENOTES MECHANIZED CLEARING
- ▨ DENOTES FILL IN WETLANDS

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
MOORE/LEE COUNTY
PROJECT: 6.569003T (R-210B)
US 1 FROM NORTH OF SR 1825
TO NORTH OF SR 1182
SHEET 33 OF 37 8/22/99

SITE 17



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

MOORE / LEE COUNTY
PROJECT 8.T560302
US 1 FROM NORTH OF SR 1825 TO
NORTH OF SR 1182, R-210 B

			WETLAND IMPACTS				SURFACE WATER IMPACTS					
Site No.	Station (From/To)	Structure Size	Fill In Wetlands (Ha)	Temp. Fill In Wetlands (Ha)	Excavation In Wetlands (Ha)	Mechanized Clearing (Ha)	Fill In SW (Natural) (Ha)	Fill In SW (Pond) (Ha)	Temp. Impact To SW (Ha)	Existing Channel Impacted (m)	Relocated Channel (m)	Enclosed Channel (m)
1	+/- 100+30-L-	600 RCP	0.018			0.003		0.530				
2	+/- 103+60-L-	1350 RCP	0.093			0.132		0.370	1.470			
3	+/- 117+80-L-	600 RCP	0.182			0.019						
4	+/- 121+20-L-	600 RCP	0.157			0.011		0.050				
5	+/- 13+60-Y7-	-						0.440				
6	+/- 129+20-L-	1200 RCP	0.454			0.055		0.014		65.0	-	57.0
7	+/- 132+40-L-	750 -900 RCP	0.431									
8	+/- 136+00-L-	1200 RCP	0.488			0.021						
9	+/- 141+00-L-	1050 RCP	0.286			0.037		0.010		51.0		50.0
10	+/- 150+40-L-	BRIDGE	0.351	0.131		0.056						
11	+/- 155+60-L-	-	0.029			0.003						
12	+/- 159+00-L-	600 RCP	0.167			0.008		0.037				
13	+/- 164+00-L-	1050 RCP	0.237			0.014						
14	+/- 169+80-L-	900 RCP	0.506			0.011		0.636				
15	+/- 13+00-Y16-	1200 RCP	0.157			0.049		0.642				
	+/- 176+40-L-	1050 RCP										
16	+/- 19+80-Y10A	750 RCP	0.158			0.035						
17	+/- 114+20-L-	900 RCP	0.083			0.011						
TOTALS:			3.797	0.131	0.000	0.465	0.000	2.729	1.470	116.0	0.0	107.0

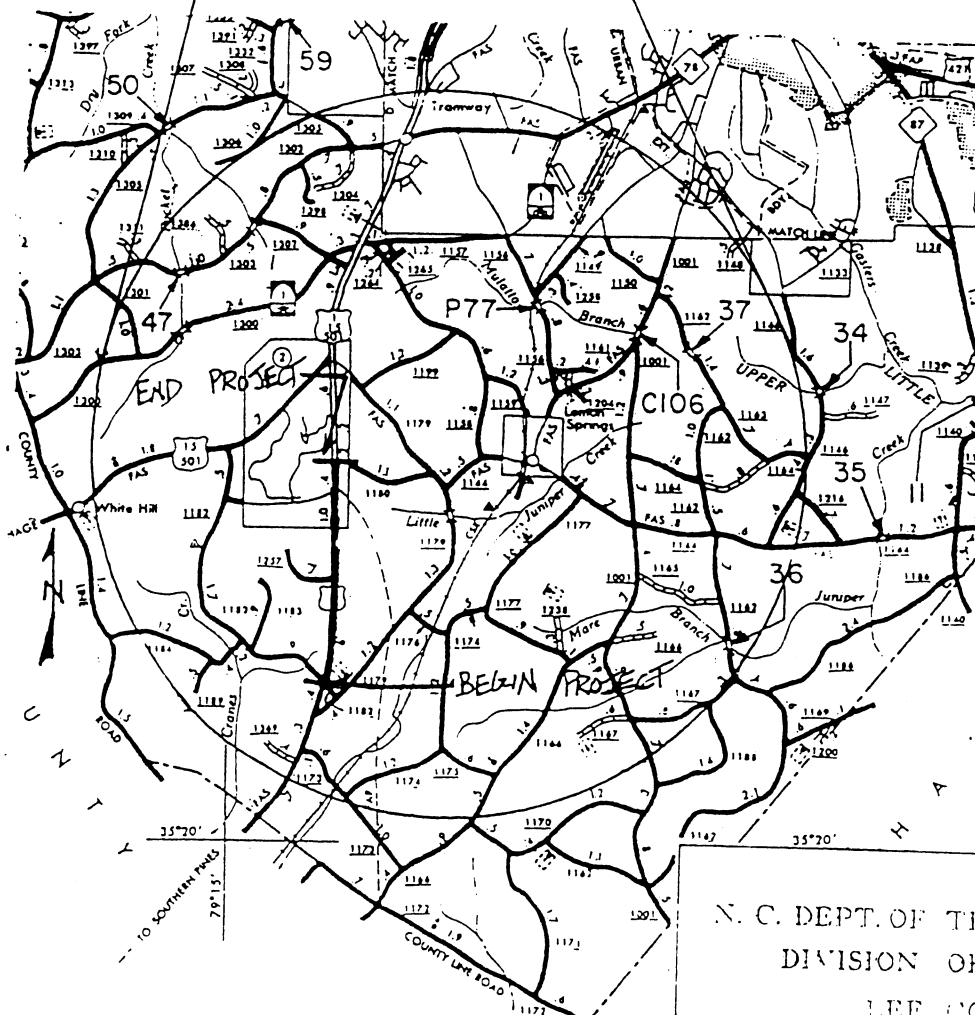
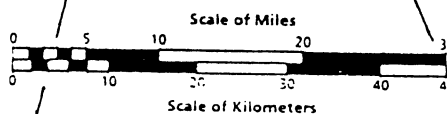
N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

MOORE/LEE COUNTY

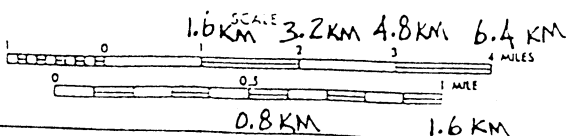
PROJECT: 6.569003T (R210B)
US 1 FROM NORTH OF SR 1825 TO NORTH OF SR 1182

SHEET 36 OF 37

6/6/8



PROJECT: 8.T560502 (R-02100)
US 1 FROM SR 1182 TO SR 1180
SOUTH OF SANFORD
SHEET 1 OF 25





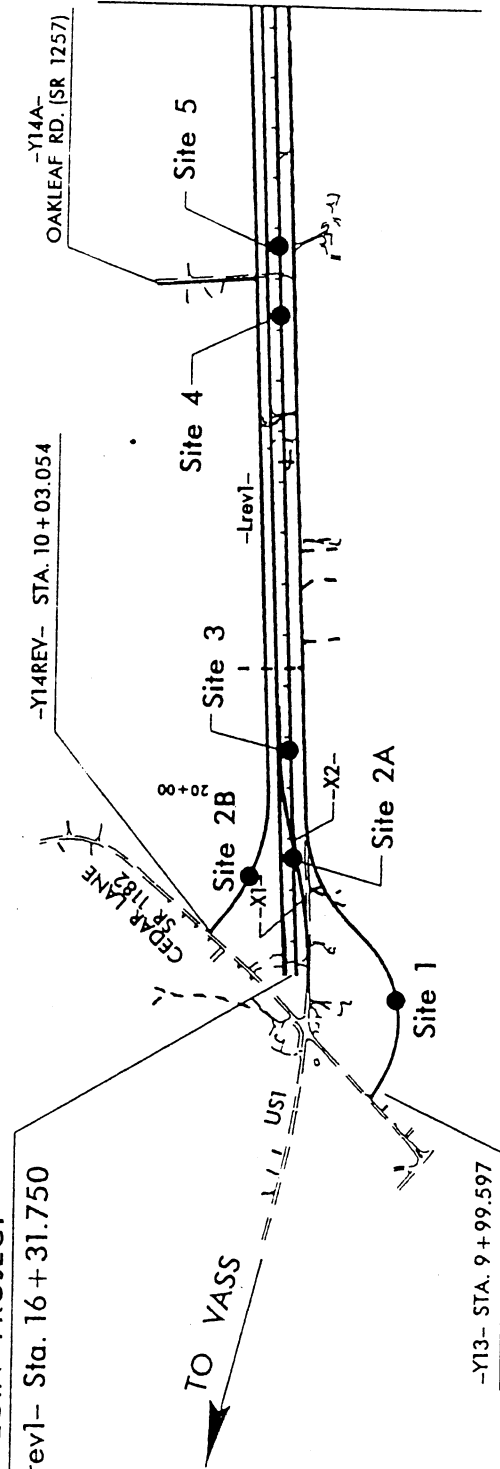
BEGIN PROJECT

-Lrevl- Sta. 16+31.750

-Y14REV- STA. 10+03.054

-Y14A-
OAKLEAF RD. (SR 1257)

MATCH LINE Sta. 35+43



N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY

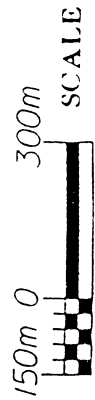
PROJECT: 8.T560302 (R-0210C)

US 1 FROM SR 1182 TO SR 1180
SOUTH OF SANFORD

JAN 1998 REVISED JUNE 1999

SHEET 2 OF 25

SITE MAP

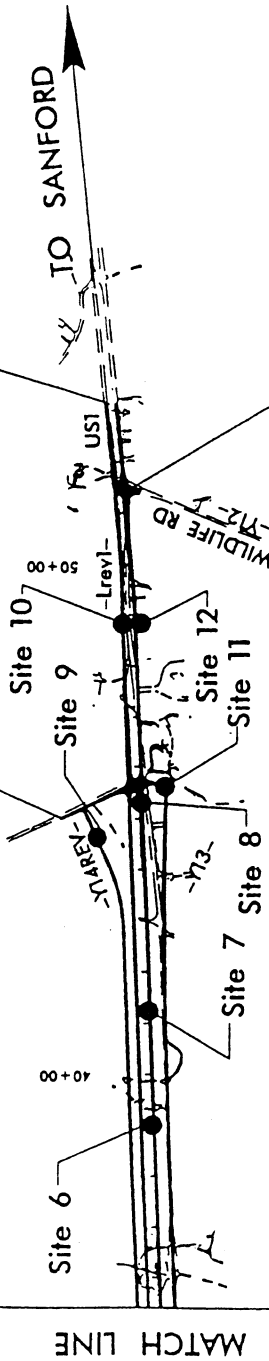




END PROJECT

-L1- Sta. 59 + 40.000

EAKES RD. (SR 1181)



SITE MAP

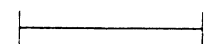
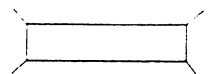
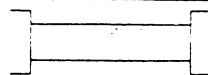
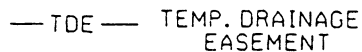
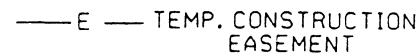
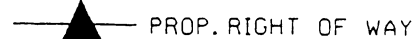
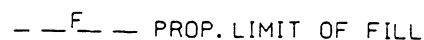
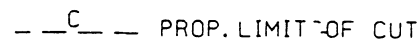
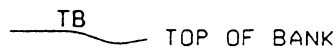
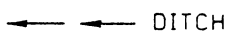
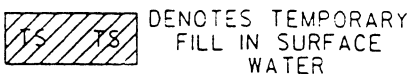
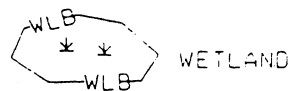


N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY

PROJECT: 8.T560302 (R-0210C)

US 1 FROM SR 1182 TO SR 1180'
SOUTH OF SANFORD
JAN 1998 REVISED JUNE 25 1999
SHEET 3 OF 25

— WLB — WETLAND BOUNDARY



(DASHED LINES DENOTE EXISTING STRUCTURES)

12"-48" PIPES
54" PIPES & ABOVE

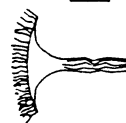


SINGLE TREE

WOODS LINE



DRAINAGE INLET



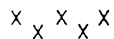
ROOTWAD



RIP RAP



ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE



LIVE STAKES



BOULDER



COIR FIBER ROLLS

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

LEE COUNTY

PROJECT: 8.T560302 (R-0210C)

US 1 FROM SR 1182 TO SR 1180

SOUTH OF SANFORD

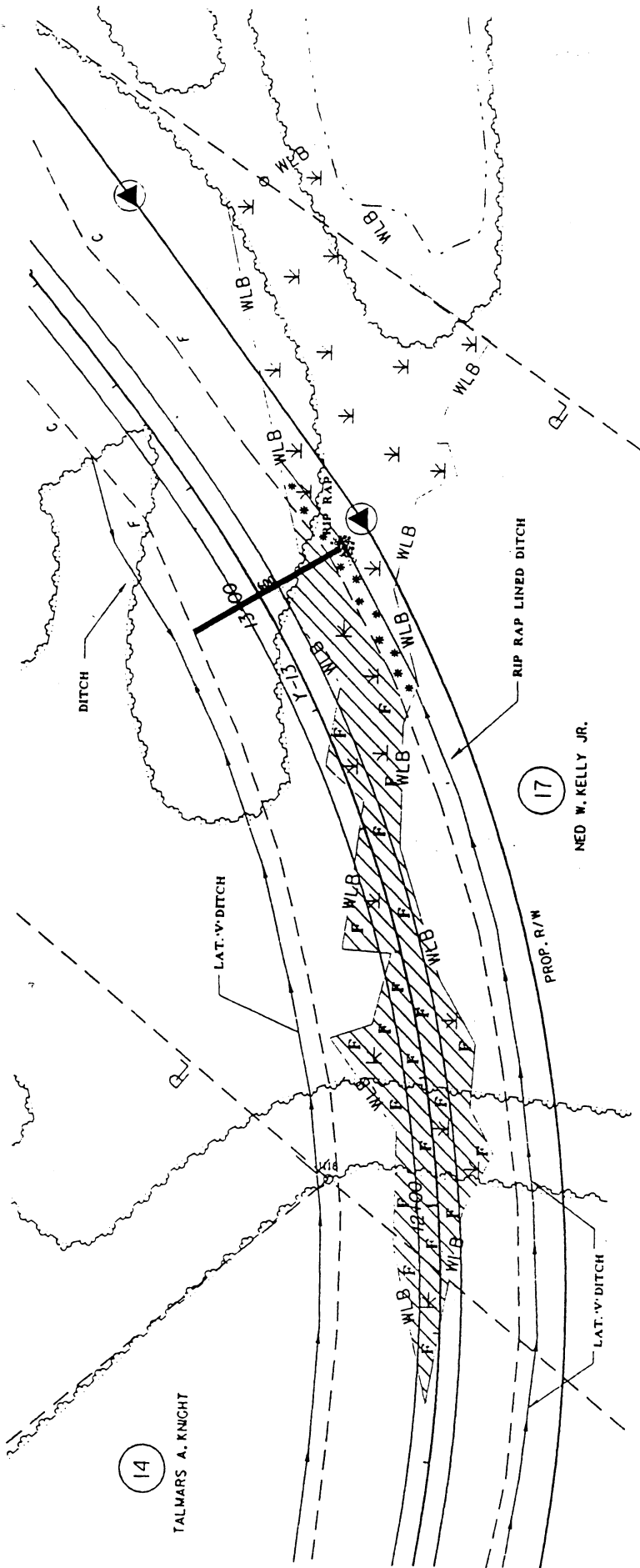
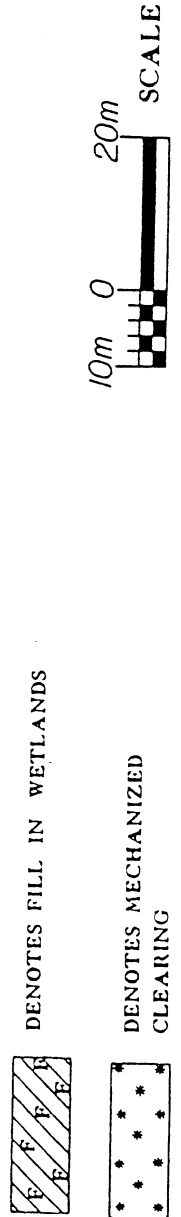
JAN 1998

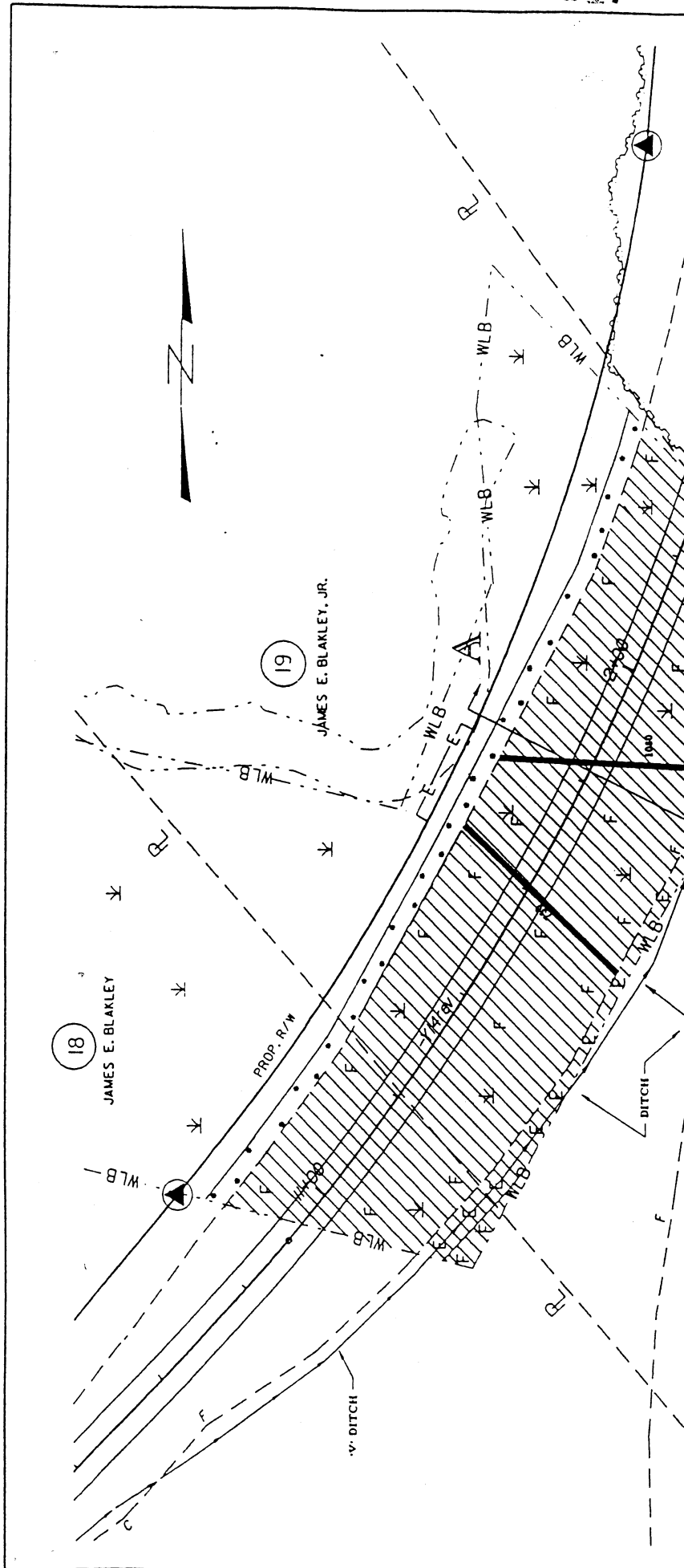
REVISED JUNE 1999

SHEET 4 OF 25

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 LEE COUNTY
 PROJECT: 8.T560302 (R-0210C)
 US 1 FROM SR 1182 TO SR 1180,
 SOUTH OF SANFORD
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 SHEET 5 OF 25

PLAN VIEW SITE 1


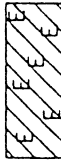
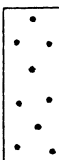


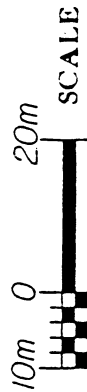


MATCH LINE SITE 2 SHEET 7 OF 25

PLAN VIEW

SITE 2

-  DENOTES FILL IN WETLANDS
-  DENOTES EXCAVATION IN WETLANDS
-  DENOTES MECHANIZED CLEARING



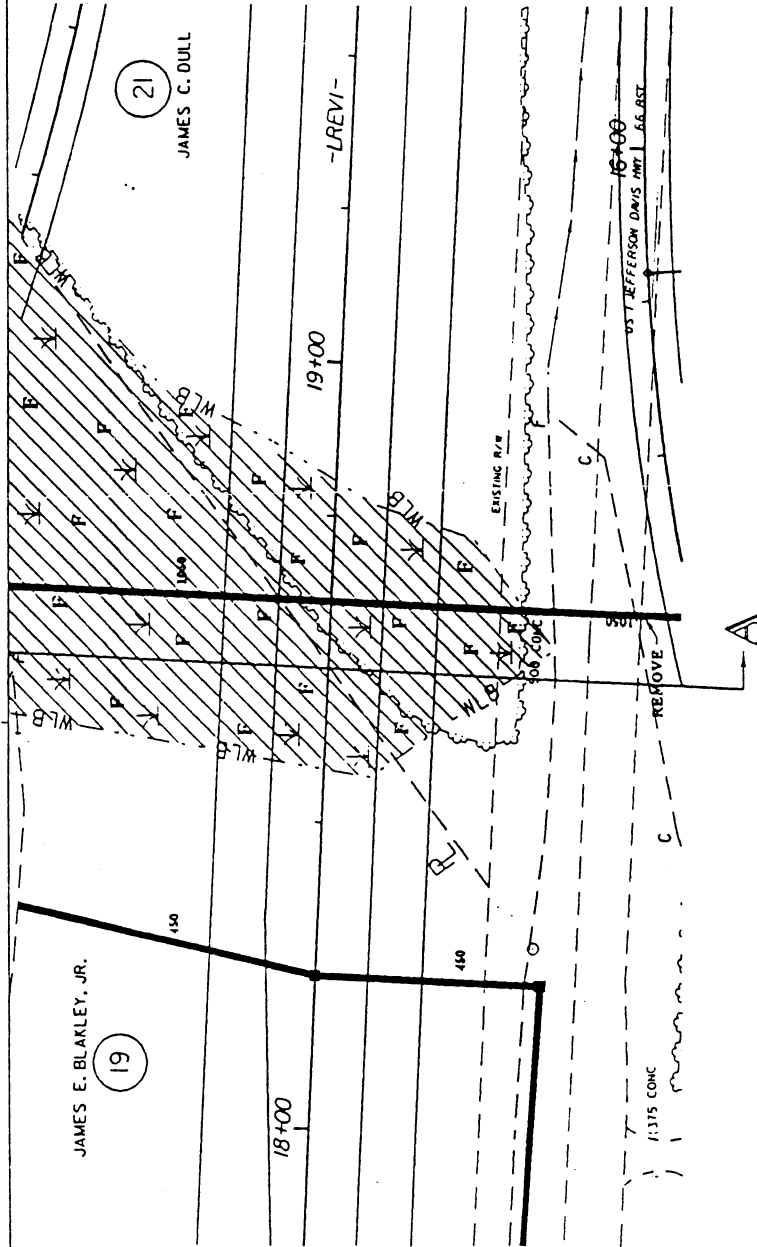
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DIVISION OF HIGHWAYS
LEE COUNTY

PROJECT: 8-T560302 (R-0210(C))

US 1 FROM SR 1182 TO SR 1180,
SOUTH OF SANFORD

JAN 1998 REVISED JUNE 1999

SHEET 6 OF 25

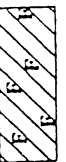


PLAN VIEW SITE 2

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY

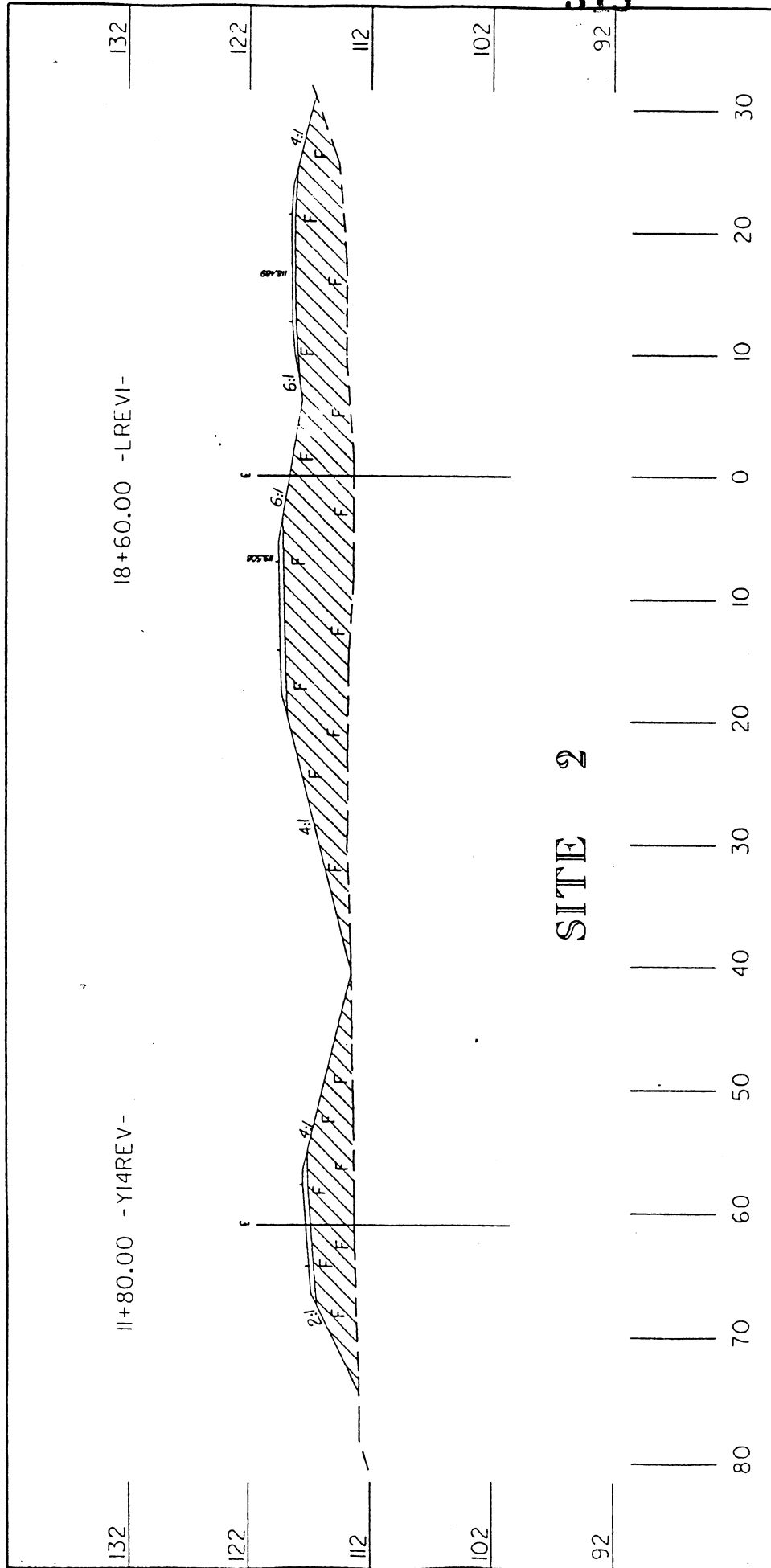
PROJECT: 8.T560302 (R-0210C)
US 1 FROM SR 1182 TO SR 1180
SOUTH OF SANFORD
JAN 1998 REVISED JUNE 1999
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DENOTES FILL. IN WETLANDS



10m 0 20m

SCALE



N. C. DEPT. OF TRANSPORTATION

DIVISION OF HIGHWAYS

LEE COUNTY

PROJECT: 8.T560302 (R-0210C)

US 1 FROM SR 1182 TO SR 1180"
SOUTH OF SANFORD

JAN 1998 REVISED JUNE 1999

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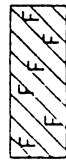
HORIZONTAL SCALE



VERTICAL SCALE

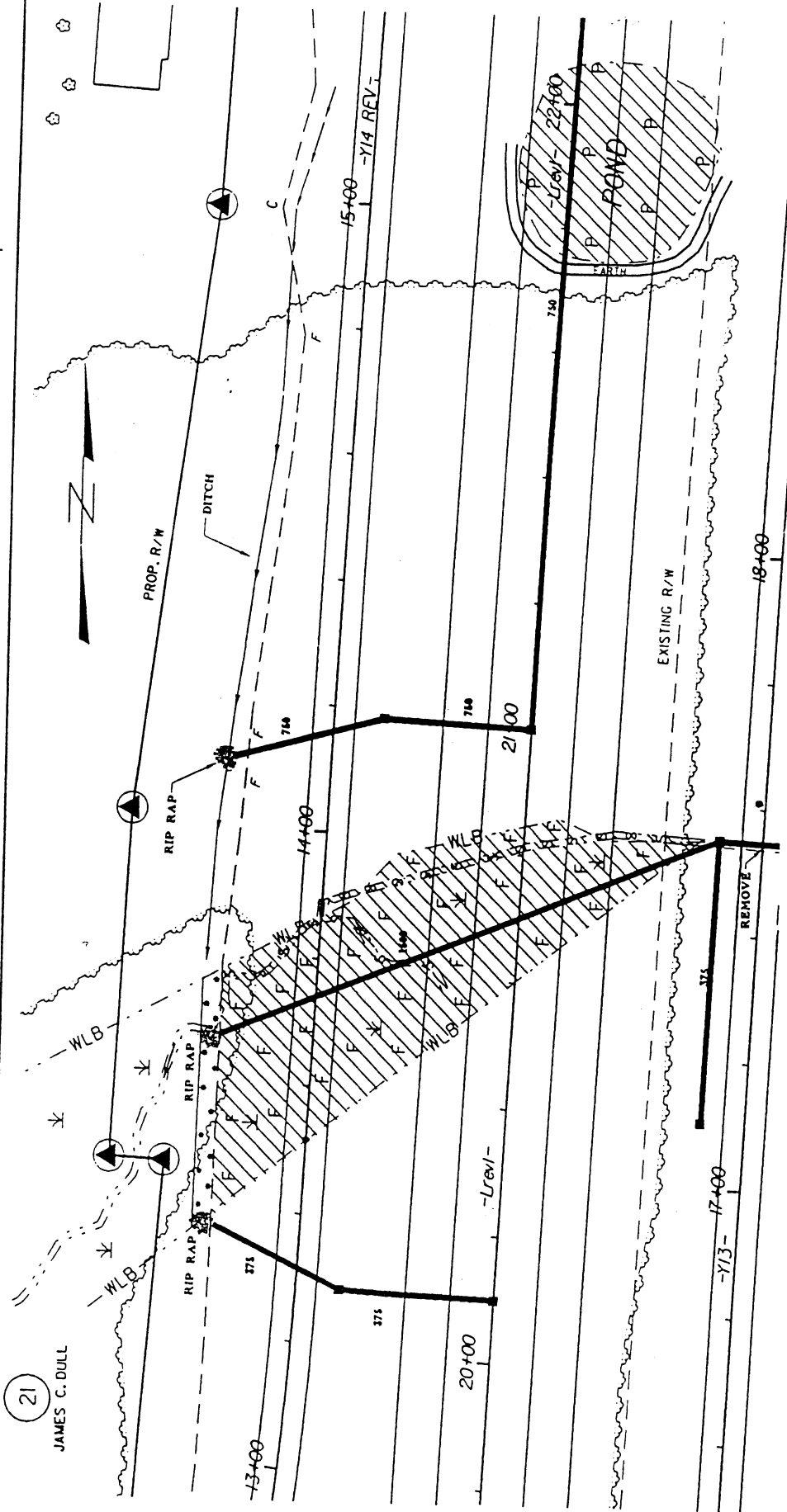


**DENOTES FILL
IN WETLANDS**



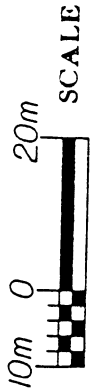
(21)

JAMES C. DULL

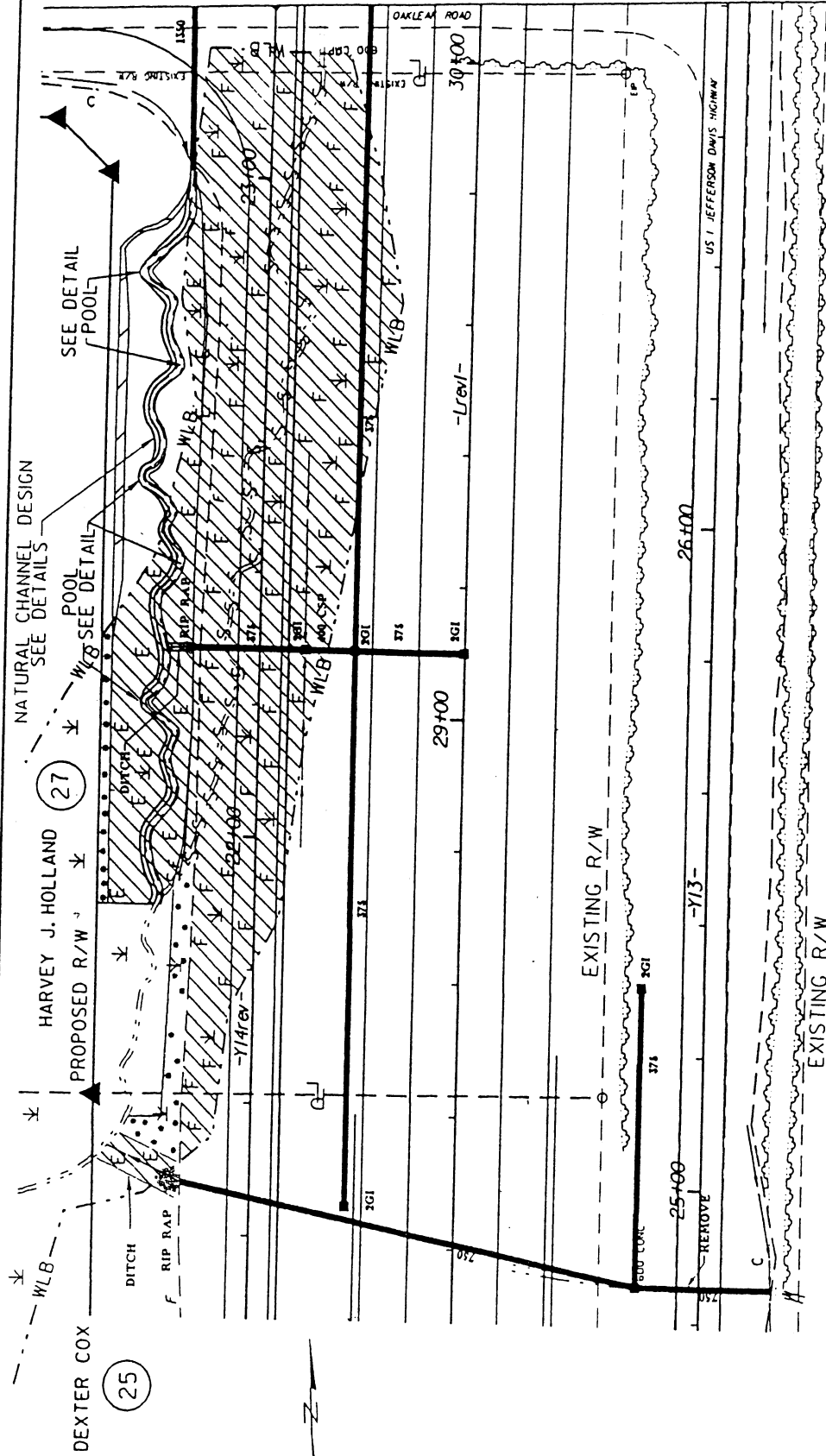


PLAN VIEW SITE 3

- DENOTES FILL IN WETLANDS
- DENOTES FILL IN SURFACE WATERS
- DENOTES FILL IN SURFACE WATERS (POND)
- DENOTES MECHANIZED CLEARING



N. C. DEPT. OF TRANSPORTATION
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DENOTES FILL IN WETLANDS

DENOTES EXCAVATION IN WETLANDS

DENOTES FILL IN
SURFACE WATERS

DENOTES MECHANIZED
CLEARING

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

LEE COUNTY

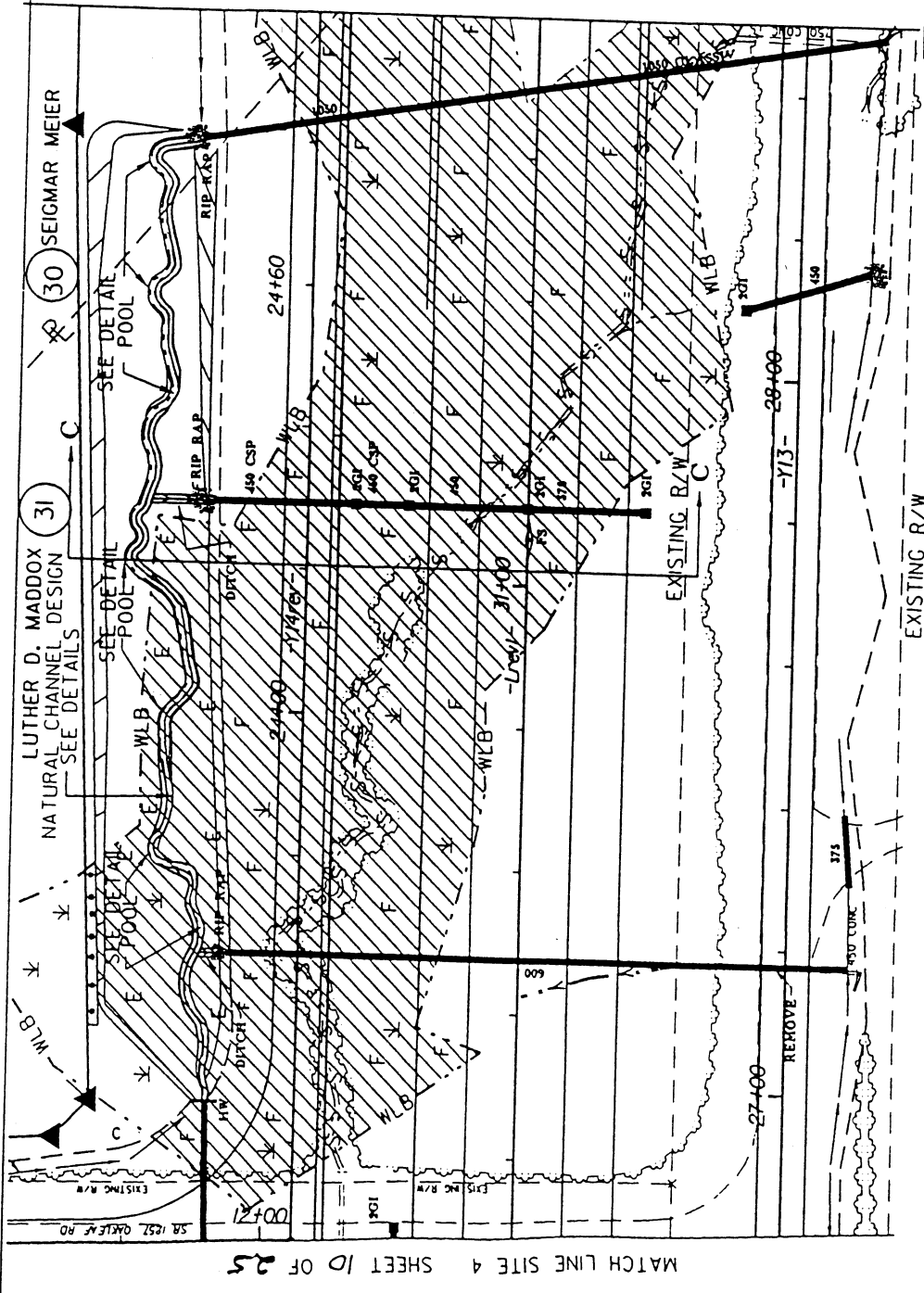
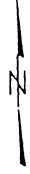
PROJECT:8.T560302 (R-0210C)

US 1 FROM SR 1182 TO SR 1180
SOUTH OF SANFORD

JAN 1998 REVISED JUNE 1999

SHEET 10 OF 25

MATCH LINE SITE 5 SHEET 12 OF 25

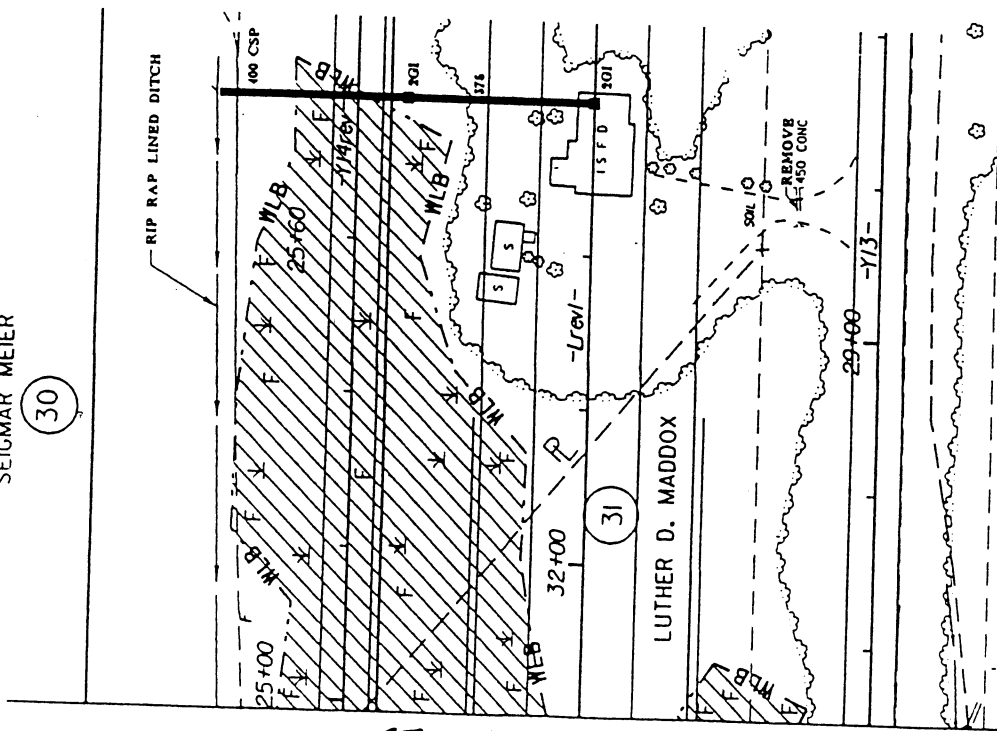


N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY
PROJECT: 8.T560302 (R-0210C)
US 1 FROM SR 1182 TO SR 1180'
SOUTH OF SANFORD
JAN 1998 REVISED JUNE 1999
SHEET 11 OF 25

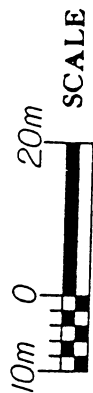
SEIGMAR MEIER

(30)

MATCH LINE SITE 5 SHEET 11 OF 25



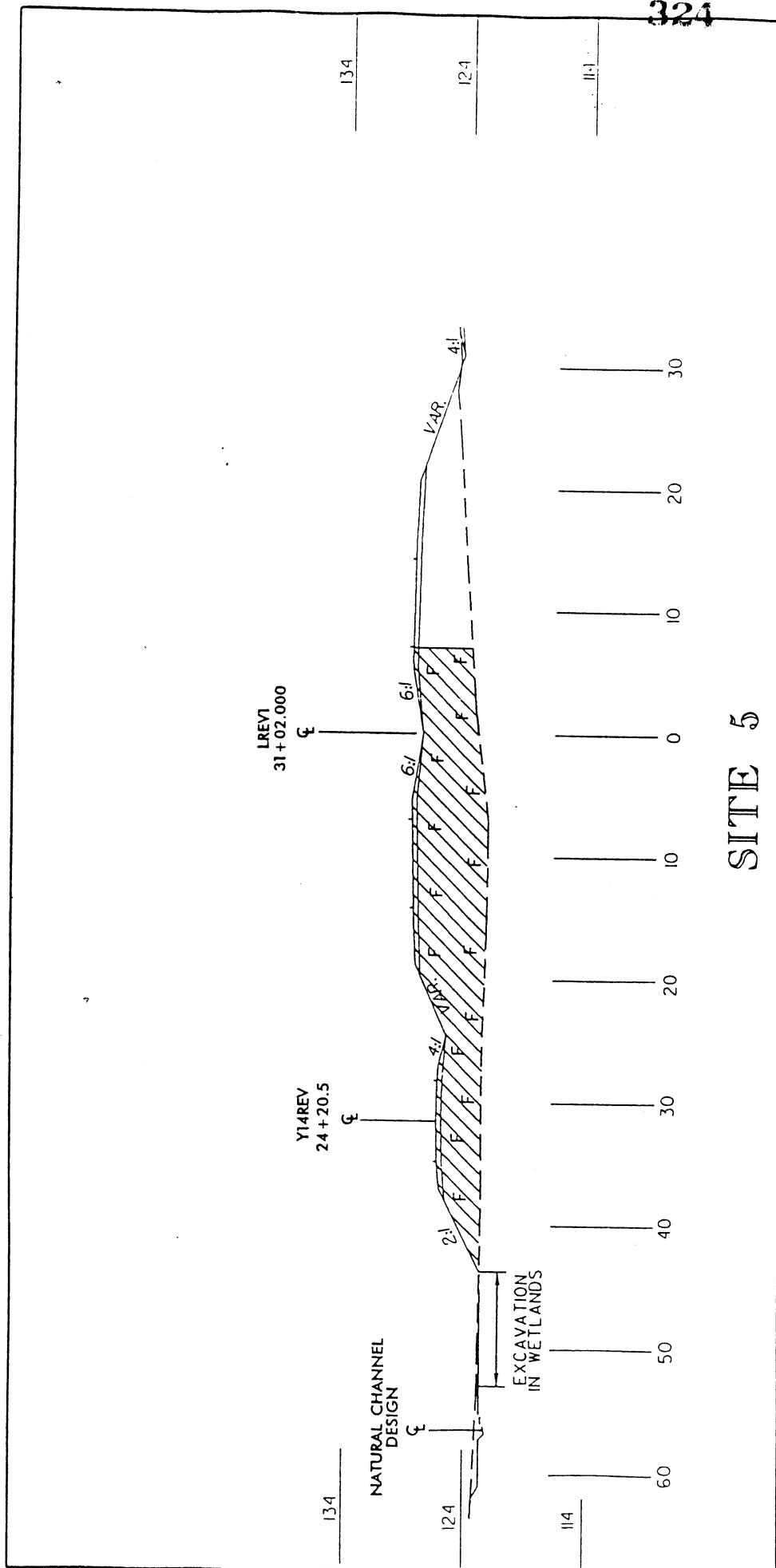
PLAN VIEW SITE 5



DENOTES FILL IN WETLANDS



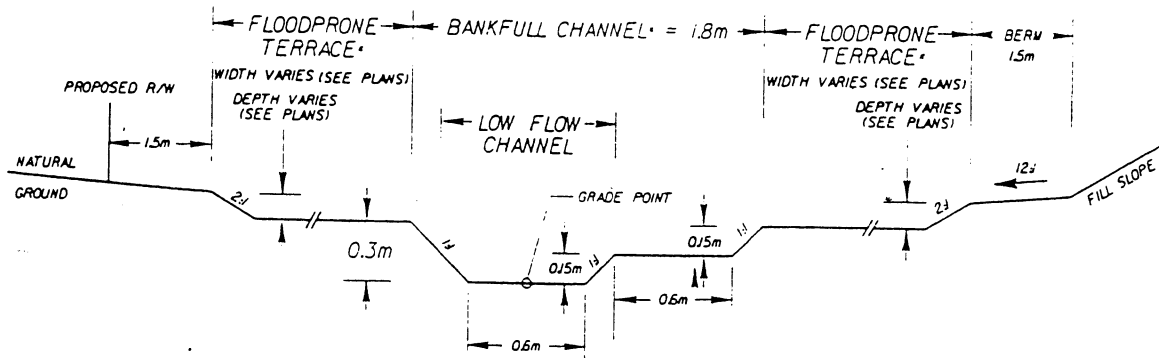
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY
PROJECT: 8.T560302 (R-0210C)
US 1 FROM SR 1182 TO SR 1180,
SOUTH OF SANFORD
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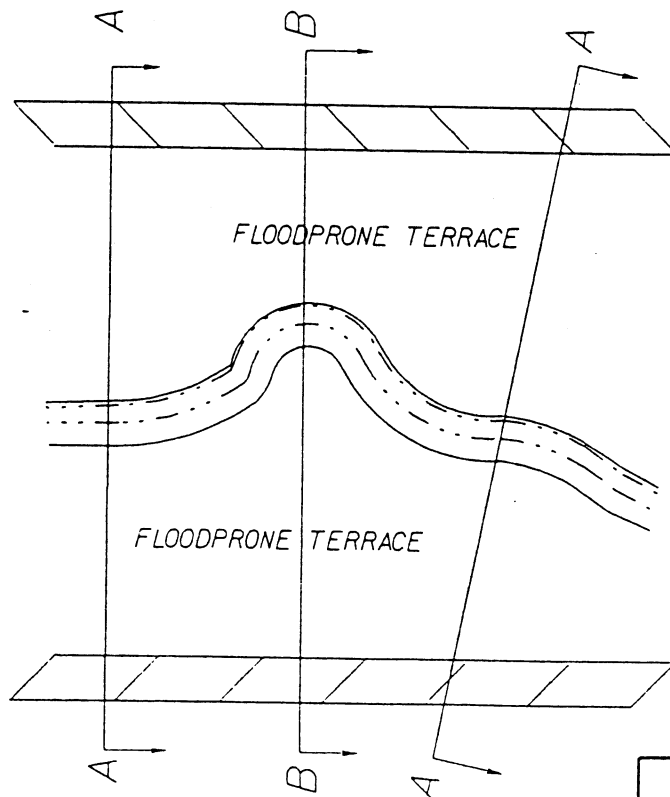
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<p>2.5m 0 10m</p> <p>HORIZONTAL SCALE</p>		<p>2.5m 0 10m</p> <p>VERTICAL SCALE</p>	
<p>2.5m 0 10m</p> <p>DENOTES FILL IN WETLANDS</p>		<p>2.5m 0 10m</p> <p>DENOTES EXCAVATION IN WETLANDS</p>	

RIFFLE SECTION (A-A)

(Not to Scale)



NOTE: STABILIZE BANKFULL CHANNEL BANKS AND FLOODPRONE TERRACE WITH SODDING AND NATIVE VEGETATION. BED MATERIAL OF LOW FLOW CHANNEL SHALL CONSIST OF NATIVE SOILS.



A-A: RIFFLE SECTION

B-B: POOL SECTION

(Not to Scale)

SITES 4 & 5
NATURAL CHANNEL
DESIGN DETAILS

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY

PROJECT: 8.T560302 (R-0210C)

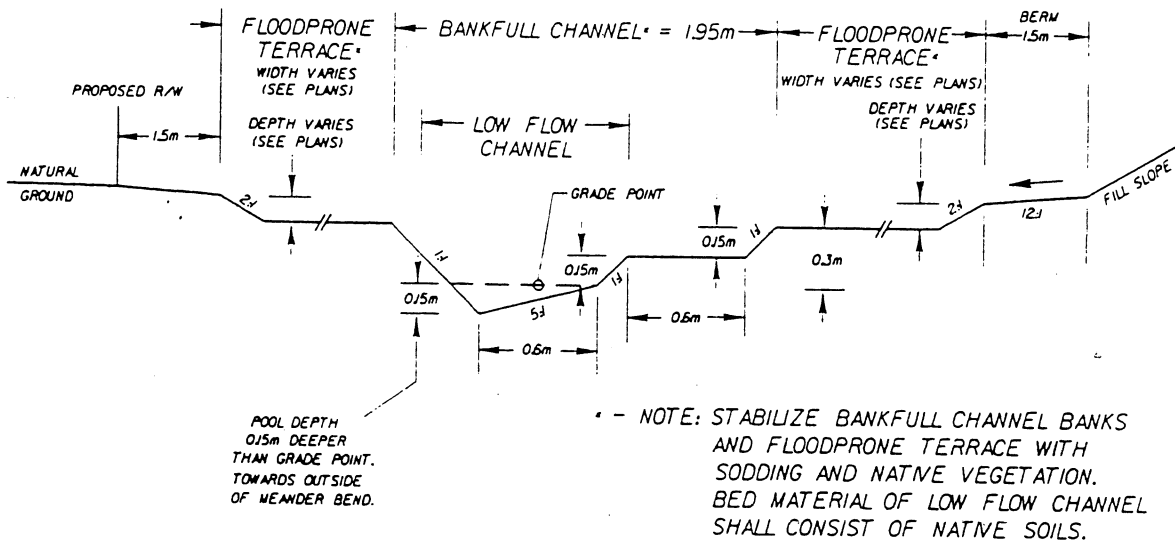
US 1 FROM SR 1182 TO SR 1180
SOUTH OF SANFORD

JAN 1998 REVISED JUNE 1999

SHEET 14 OF 25

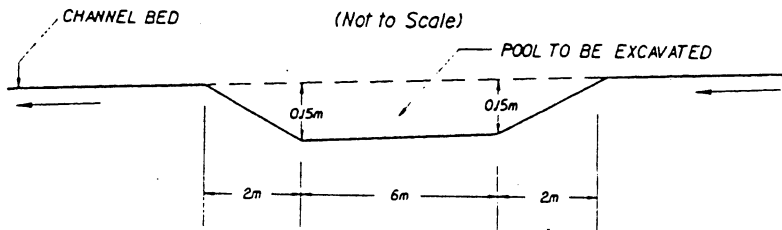
POOL SECTION (B-B)

(Not to Scale)



POOL PROFILE

(Not to Scale)



SEE PLAN VIEW FOR POOL SPACING

SITES 4 & 5 NATURAL CHANNEL DESIGN DETAILS

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY

PROJECT:8.T560302 (R-0210C)

US 1 FROM SR 1182 TO SR 1180
SOUTH OF SANFORD

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ITEM	EXISTING [*] STREAM	REFERENCE STREAM	PROPOSED [*] RELOCATION
STREAM NAME	Tributary to Little Crane Creek	Tributary to Little Crane Creek	Tributary to Little Crane Creek
DRAINAGE AREA (DA)	76 ha	76 ha	76 ha
CHANNEL SLOPE (S)	1.1%	1.1%	0.9%
BANKFUL WIDTH (W_{bkr})	1.7m - VAR.	1.7m	1.8m
MEAN DEPTH (d_{bkr})	0.2m	0.2m	0.18m
BANKFUL X-SECTION AREA (A_{bkr})	$0.33m^2$ - VAR.	$0.33m^2$	$0.36m^2$
WIDTH/DEPTH RATIO (W_{bkr}/d_{bkr})	8.5 - VAR.	8.5	10
Maximum DEPTH (d_{mbkr})	0.31m	0.31m	0.3m
WIDTH Flood-Prone Area (W_{fpe})	45m	45m	15m
ENTRENCHMENT RATIO (ER)	26.5 - VAR.	26.5	8.3
CHANNEL MATERIALS: D50	sand	sand	sand
SINUOSITY (K)	1.1 - VAR.	1.1	1.2
MEANDERS:			
AVG. LENGTH	VAR.	13.8m	14.0m
AVG. AMPLITUDE	VAR.	2.6m	2.6m
AVG. RADIUS	VAR.	5.1m	5.0m
DISCHARGES:			
0 BANKFULL	0.2 cms	0.2 cms	0.3 cms
Q2	1.7 cms	1.7 cms	1.7 cms
Q10	3.1 cms	3.1 cms	3.1 cms
VELOCITY:			
V BANKFULL	0.56 m/s	0.56 m/s	0.35 m/s
V2	0.61 m/s	0.61 m/s	0.80 m/s
V10	0.71 m/s	0.71 m/s	1.01 m/s
CLASSIFICATION	D5/E5	E5	E5

* - EXISTING STREAM IS BRAIDED THROUGH MOST OF ITS LENGTH, SOME DATA IS HIGHLY VARIABLE.

NATURAL CHANNEL
DESIGN DATA
SITES 4 & 5

N. C. DEPT. OF TRANSPORTATION

DIVISION OF HIGHWAYS

LEE COUNTY

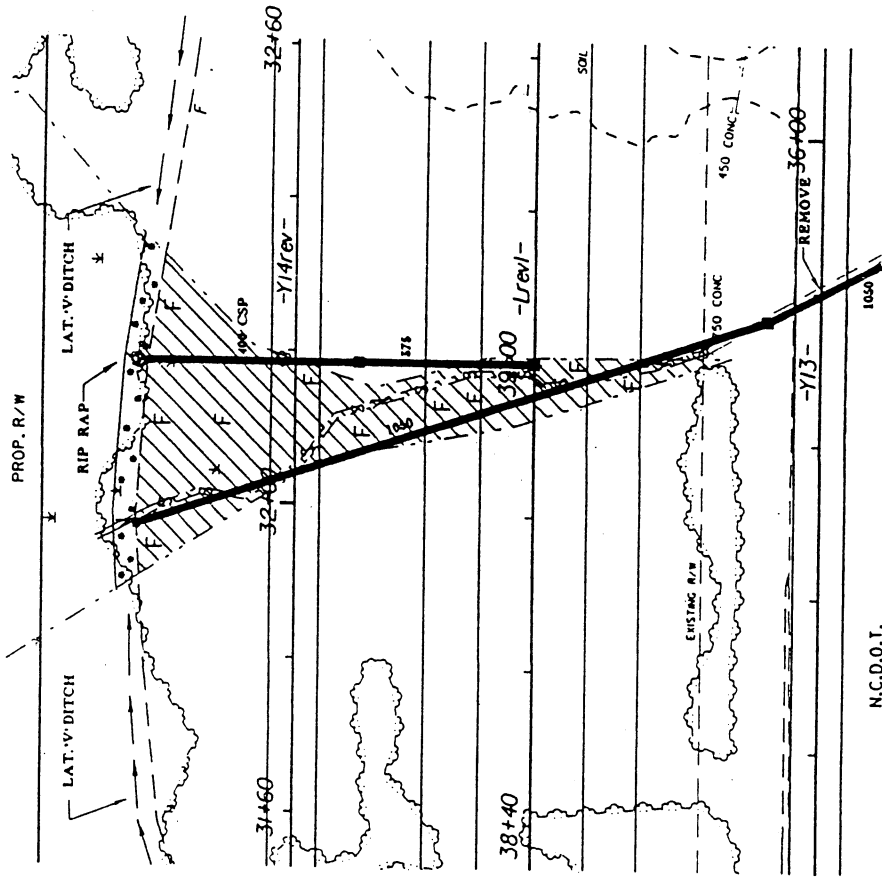
PROJECT: 8.T560302

US 1 FROM SR 1182 TO SR 1180
SOUTH OF SANFORD

JAN 1998 REVISED JUNE 1999
SHEET 16 OF 25

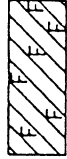
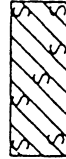
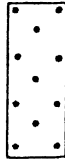
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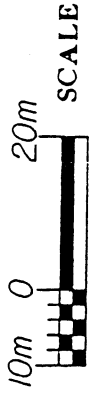
34



N.C.D.O.T.

PLAN VIEW SITE 6

-  DENOTES FILL IN WETLANDS
-  DENOTES FILL IN SURFACE WATERS
-  DENOTES MECHANIZED CLEARING



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N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

LEE COUNTY

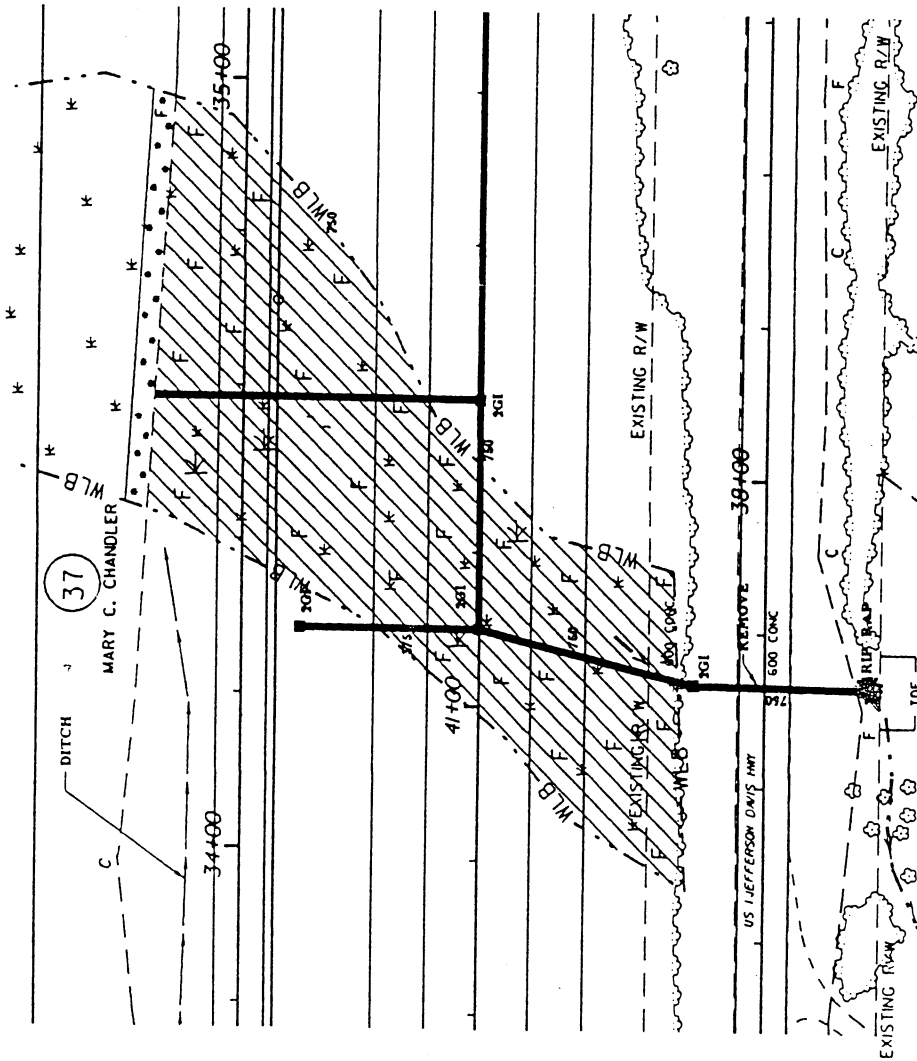
PROJECT: 8.T560302 (R-0210C)

US 1 FROM SR 1182 TO SR 1180

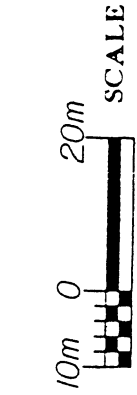
SOUTH OF SANFORD

JAN 1998 REVISED JUNE 1999

SHEET 17 OF 25

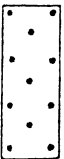
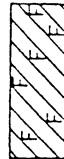


PLAN VIEW SITE 7



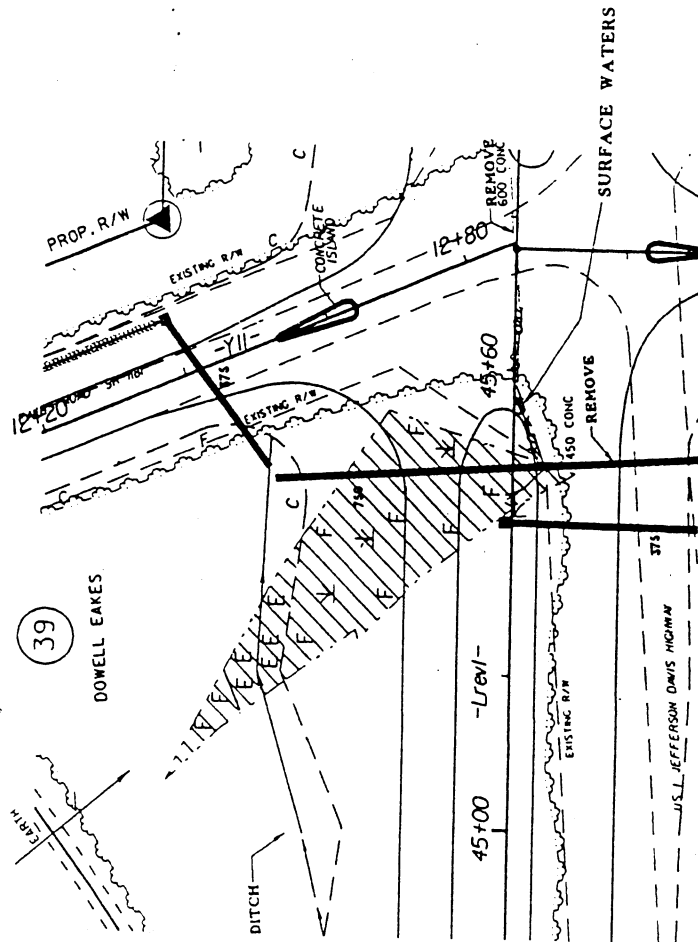
DENOTES FILL IN WETLANDS

DENOTES MECHANIZED
CLEARING

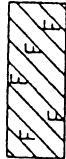
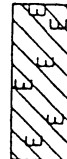



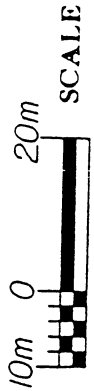
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY
PROJECT: 8.T560302 (R-0210C)

US 1 FROM SR 1182 TO SR 1186
SOUTH OF SANFORD
JAN 1998 REVISED JUNE 1999
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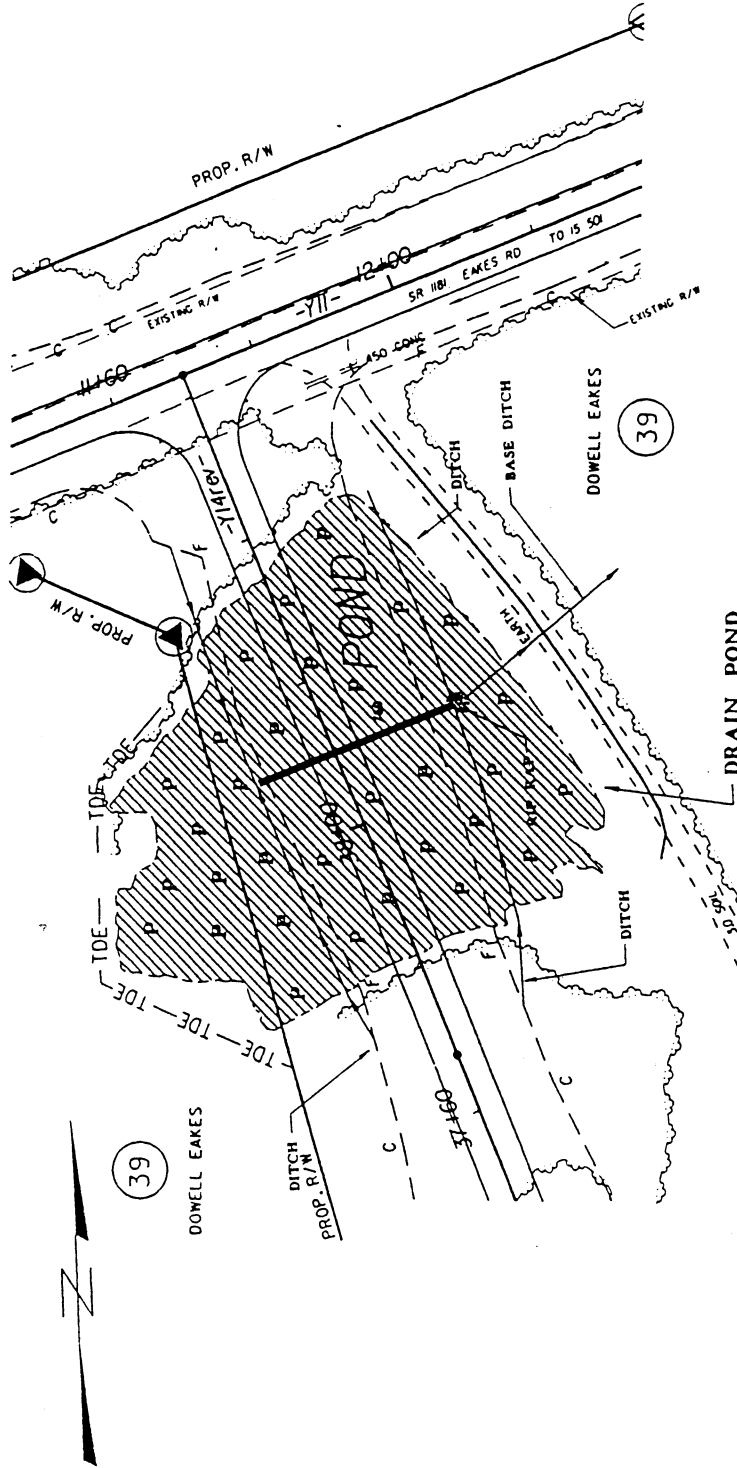


PLAN VIEW SITE 8

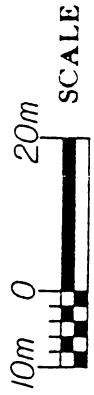
- 
 DENOTES FILL IN WETLANDS
- 
 DENOTES EXCAVATION IN WETLANDS
- 
 DENOTES FILL IN SURFACE WATERS



N. C. DEPT. OF TRANSPORTATION
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 US 1 FROM SR 1182 TO SR 1180,
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PLAN VIEW SITE 9

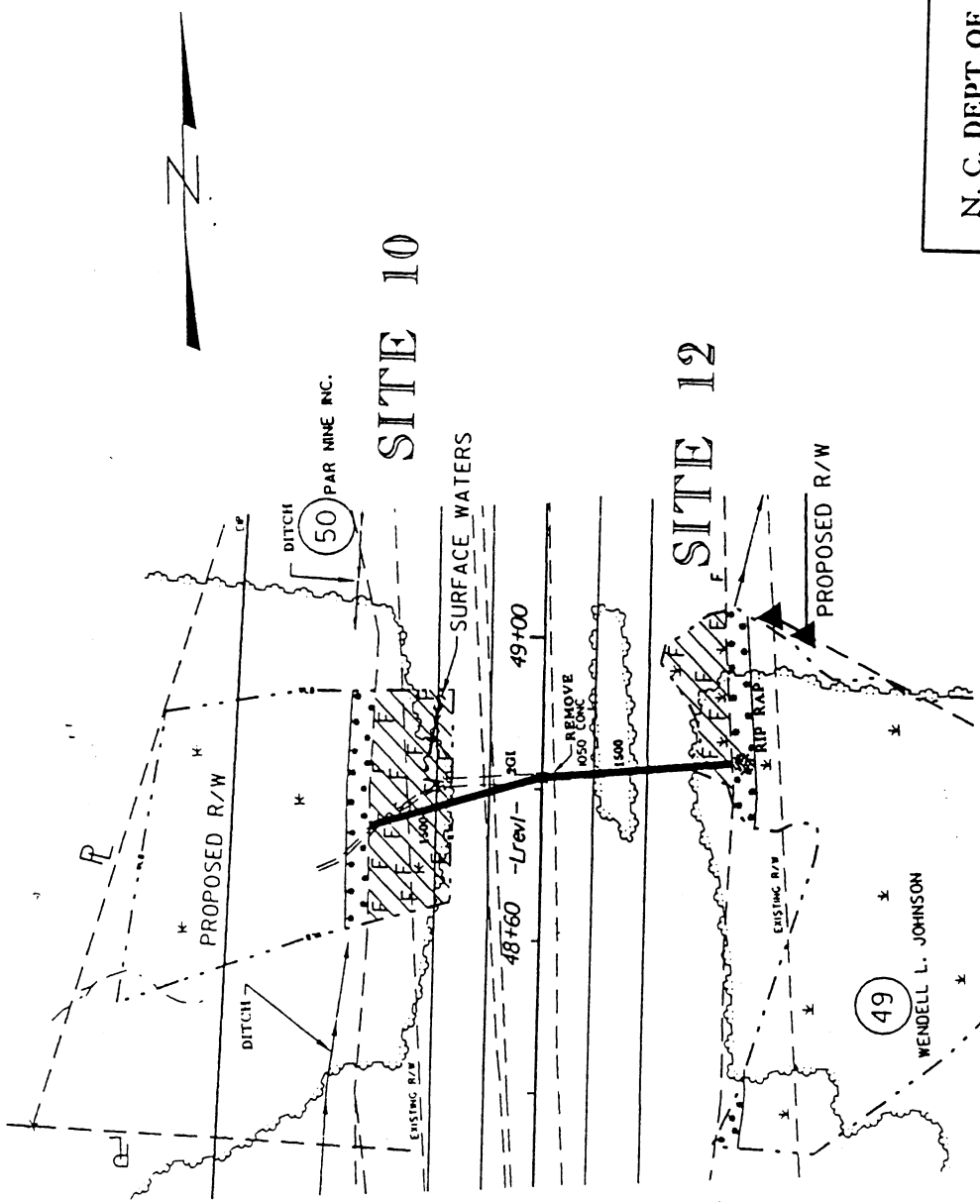


DENOTES FILL IN
SURFACE WATERS
(POND)

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY

PROJECT: 8.T560302 (R-0210C)

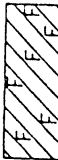
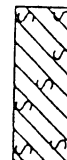

US 1 FROM SR 1182 TO SR 1180
SOUTH OF SANFORD
JAN 1998 REVISED JUNE 1999
SHEET 20 OF 25

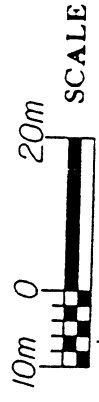


SITE 10

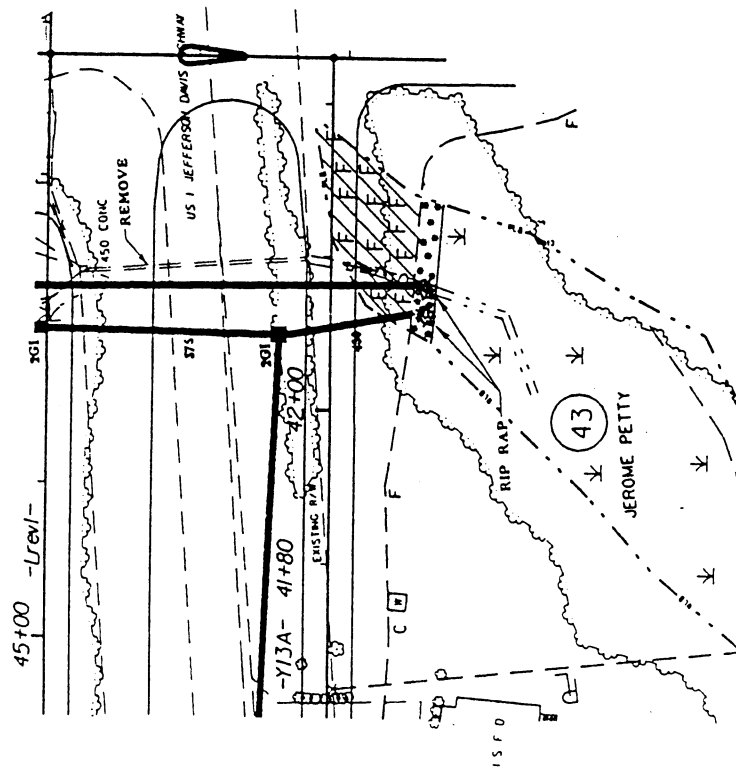
SITE 12

PLAN VIEW SITE 10 & 12




-  DENOTES FILL IN WETLANDS
-  DENOTES FILL IN SURFACE WATERS
-  DENOTES MECHANIZED CLEARING

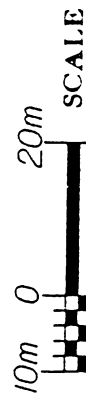


N. C. DEPT. OF TRANSPORTATION
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US 1 FROM SR 1182 TO SR 1180
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PLAN VIEW SITE II

-  DENOTES FILL IN WETLANDS
-  DENOTES FILL IN SURFACE WATERS
-  DENOTES MECHANIZED CLEARING



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N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LEE COUNTY

PROJECT: 8.T560302 (R-0210C)

US 1 FROM SR 1182 TO SR 1180
SOUTH OF SANFORD

JAN 1998 REVISED JUNE 25 1999

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SUMMARY

[illegible]

JAN 1998

REVISED JUNE 25, 1999

SHEET 25

OF 25

APPENDIX C

Little River On-site Restoration Plan

Little River On-Site Restoration Plan

Improvements and Widening to US 1
From North of Lakeview to South of Sanford
TIP No. R-210



North Carolina Department of Transportation
Division of Highways
Project Development and Environmental Analysis Branch
Natural Systems Unit

February 2001

1.0 Introduction

The North Carolina Department of Transportation (NCDOT) proposes to construct a four-lane divided freeway tying into the existing US 1 four-lane facility south of Camp Easter Road (SR 1853)/ Aiken Road (SR 2175) in Moore County to Wild Life Road (SR 1180) in Lee County. As part of the project mitigation, a restoration effort will be undertaken at the current US 1 crossing of the Little River.

1.1 Wetland Resources

Wetlands were delineated by NCDOT consultants using the "Corps of Engineers Wetlands Delineation Manual" (1987). Mr. Jeff Richter, of the U.S. Army Corps of Engineers Wilmington office, verified the delineation on March 2, 1995.

The Little River and the associated wetlands within the floodplain are very high quality. Despite the construction of a 1308-foot bridge, the proposed project will impact 4.7 acres of these wetlands. A temporary bridge will be used to construct the bridge over the Little River and the wetlands.

1.2 Summary of Mitigation

Construction of the 1308-foot bridge over the Little River and floodplain coupled with the removal of the existing US 1 bridge and causeway will allow NCDOT to restore 6.4 acres of floodplain and wetlands. The 6.4 acres includes 4.3 acres of fill that currently makes up the existing causeway (areas 1a, 2a, 2b, 2c) and 2.1 acres of remnant fill (areas 1c, 1b, 3) that was likely deposited during construction of the existing road. Besides restoring this 6.4 acres back to its original elevation, the hydraulic connectivity of the active floodplain, which is currently blocked by the existing road and causeway, will be restored. In addition, 8.4 acres of adjacent, remnant wetland parcels are being included as a preservation component.

2.1 Site Description

There are many parcels making up the site. Each parcel, as well as some other areas, has been assigned a circled number and the acreage calculated as shown on Figure 1. Following is a description of each area:

- 1a – Existing road bed on the west side of the bridge and extending back to the wetland boundary and proposed end bent
- 1b – Filled area within DOT right-of-way that will be restored to existing floodplain elevation
- 1c – Filled area beyond DOT right-of-way that will be restored to existing floodplain elevation

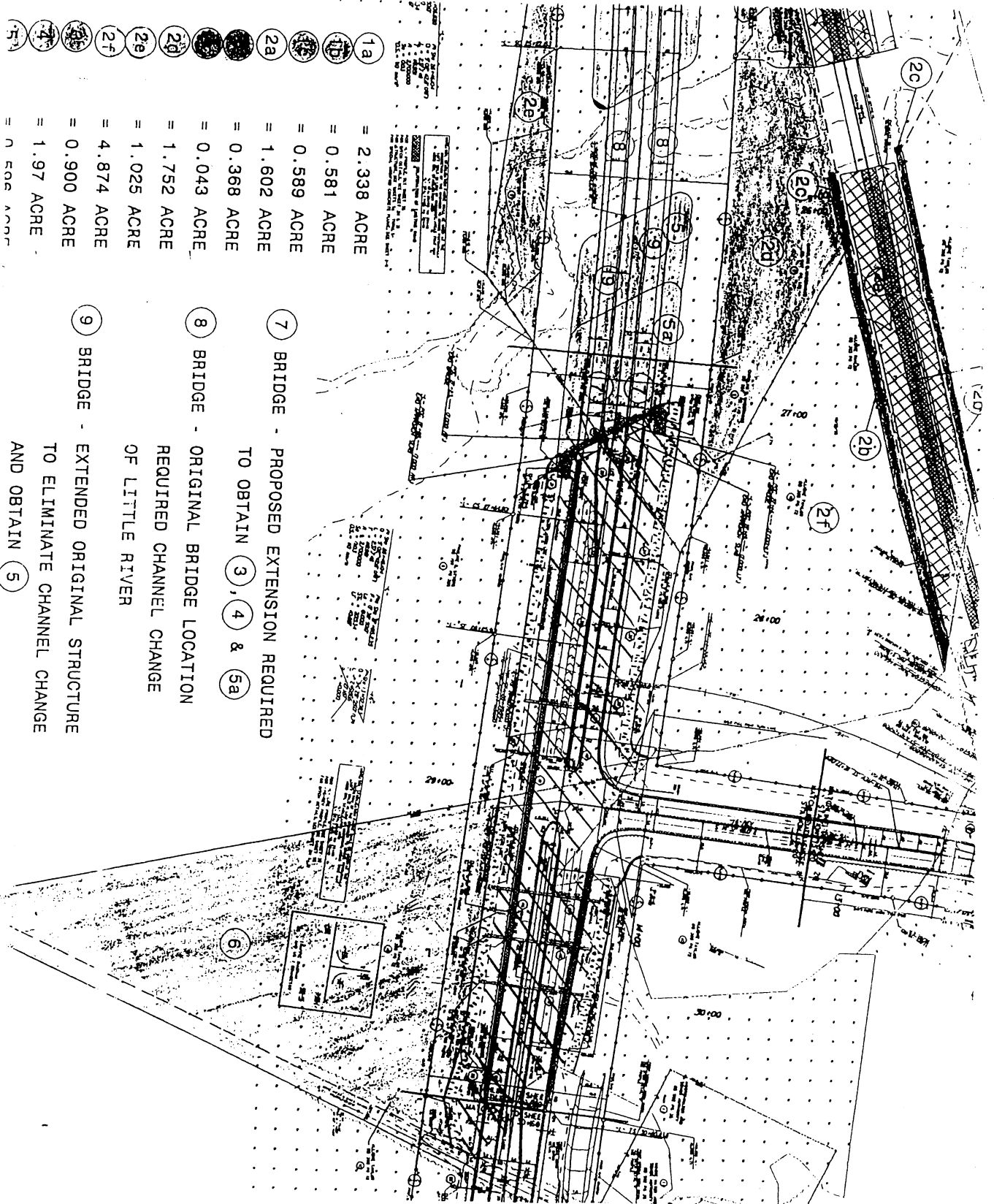
- 2a - Existing road bed on the east side of the bridge and extending back to the wetland boundary on either side of the old road bed.
- 2b - Small sliver of road fill that is beyond DOT right-of-way that will be restored to existing floodplain elevation
- 2c - Small sliver of road fill that is beyond DOT right-of-way that will be restored to existing floodplain elevation
- 2d - Remnant parcel of existing wetlands and a portion of the Little River that will be preserved
- 2e - Remnant parcel of existing wetlands and a portion of the Little River that will be preserved
- 3 - Filled area within DOT right-of-way that will be restored to existing floodplain elevation
- 4 - Wetland impacts that will be avoided by construction of the elongated bridge
- 5 - Wetland impacts that will be avoided by construction of the elongated bridge
- 5a - Wetland impacts that will be avoided by construction of the elongated bridge
- 6 - Remnant parcel of existing wetlands that will be preserved

The floodplain wetland adjacent to the Little River is characterized as bottomland hardwood according to the North Carolina Department of Environment, Health, and Natural Resources, Division of Environmental Management; Field Guide to North Carolina Wetlands (Report No. 96-01, 1996) but also has many trees typical of swamp forests. Dominant vegetation includes water tupelo (*Nyssa aquatica*), willow oak (*Quercus phellos*), sycamore (*Platanus occidentalis*), loblolly pine (*Pinus taeda*), red maple (*Acer rubrum*) and bald cypress (*Taxodium distichum*). The soils are mapped by the Soil Survey of Moore County, (NRCS, 1995) as the Wehadkee series, which is a hydric mineral soil that forms from recent alluvial sediment and is frequently flooded.

2.2 Methodology

The goal of the mitigation plan is to re-establish a wetland community as described in the Field Guide to North Carolina Wetlands. The 6.4 acres identified above and shown in Figure 1 will be graded down to an elevation of 74.5 feet, which is an average elevation from the surrounding floodplain wetland. The area will then be planted as detailed in the Wetland Reforestation Detail Sheet, which is attached. It is anticipated that this will restore 6.4 acres of high quality floodplain wetlands and restore much of the historical sheet flow of floodwaters across the flood plain.

Most of the grading work is expected to be performed in Spring 2004 since traffic will have to be maintained on the existing road until the new facility is completed. Therefore, the planting and monitoring will not take place until the 2005 growing season.



2.3 Monitoring

Hydrologic monitoring will occur throughout the growing season in the wetland area. Two groundwater gauges will be placed on either side of the river in the restored wetland. Hydrology will be monitored by using 40-inch groundwater gauges. Success will be based on saturation or inundation within 12 inches of the soil surface for a consecutive 12.5% of the growing season during years of normal rainfall.

Vegetation monitoring will be based on visual observation of plant establishment and recorded using photo reference points. Stem count, species composition, and plant health will be recorded annually at the end of the growing season. Success will be based on survival of 320 trees per acre in year three with a target survival of 260 trees per year in year five.

3.0 Mitigation Credit

The site is expected to generate 6.4 acres of restoration and 8.4 acres of preservation. All of the wetland preservation and 4.7 acres of the restoration are going to be used to compensate for the 4.7 acres of high quality impact that will result from construction of US 1 (TIP R-210) across this floodplain. The remaining 1.7 acres of restoration is anticipated to be used to compensate for impacts associated with the Sanford Bypass (R-2417).

3.1 Final Dispensation of Property

NCDOT will retain ownership of the mitigation site until all monitoring requirements are fulfilled and an appropriate recipient is identified. If and when the deed is transferred, restrictions will be placed on the property to ensure protection in perpetuity.

DATE	BY	REVISION
		RF-1

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WETLAND REFORESTATION

TREE REFORESTATION SHALL BE PLANTED 6' TO 10' ON CENTER RANDOM SPACING, AVERAGING 8' ON CENTER APPROXIMATELY 680 PLANTS PER ACRE.

WETLAND REFORESTATION

MATURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

TAXODIUM DISTICHUM	BALD-CYPRESS	12" - 18", SEEDLING BR
NYSSA BIFLORA	SWAMP TUPELO	12" - 18", SEEDLING BR
QUERCUS PHIELLOS	WILLOW OAK	12" - 18", SEEDLING BR
QUERCUS MICHAUXII	SWAMP CHESTNUT OAK	12" - 18", SEEDLING BR

SEE PLAN SHEETS FOR AREAS TO BE PLANTED

WETLAND REFORESTATION
DETAIL SHEET
N.C.DOT - ROADSIDE ENVIRONMENTAL UNIT

PLANTING DETAILS SEEDLING / LINER BARERoot PLANTING DETAIL

HEELING IN

1. Lay out a heel-in area in a shady, well-ventilated area.

2. Sprinkle a thin layer of water (1/2" deep) and provide drainage.

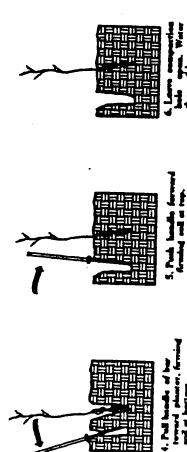
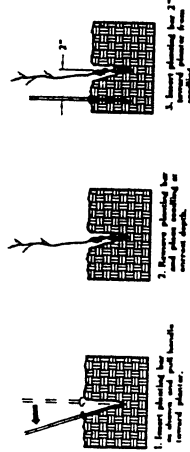
3. Spread the seedlings with 1/2" and 1/4" of soil. Place a 1/2" layer of soil over the seedlings and in the heel-in area.

4. Place a 1/2" layer of soil over the seedlings and in the heel-in area.

5. Place a 1/2" layer of soil over the seedlings and in the heel-in area.

6. Remove layers of plants and seedlings in a manner and water thoroughly.

DIBBLE PLANTING METHOD USING THE RBC PLANTING BAR



PLANTING NOTES:

PLANTING BAG

Planting bags should be used for all seedlings. The bags should be filled with soil and water before planting.

RBC PLANTING BAR

The RBC planting bar is used to create a hole in the soil for the seedling. It is 1/2" wide and 1/4" deep.

PLANTING NOTES: All seedlings to be planted, if necessary, in the heel-in area. The heel-in area should be 10' wide and 10' long.

APPENDIX D

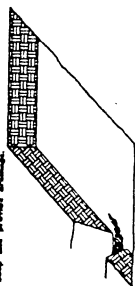
Miscellaneous Information

PLANTING DETAILS

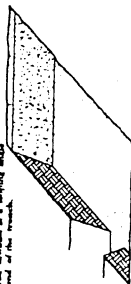
SEEDLING / LINER BARERoot PLANTING DETAIL

HEALING IN

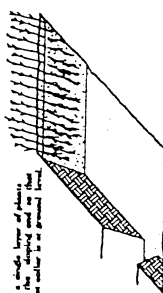
1. Lay a 100mm deep layer of soil, well prepared, over the seedling.
2. Examine the bottom, length, width and provide drainage.



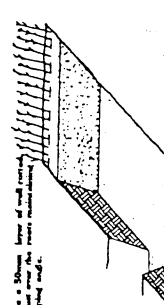
3. Build the trench with 100mm soil, well prepared, over the seedling, and provide drainage.



4. Place a 100mm layer of soil, well prepared, over the seedling, and provide drainage.

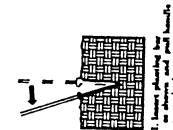


5. Place a 100mm layer of soil, well prepared, over the seedling, and provide drainage.



6. Repeat steps of planting and healing in trench and provide drainage.

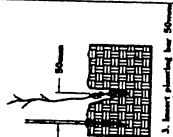
DIBBLE PLANTING METHOD USING THE KBC PLANTING BAR



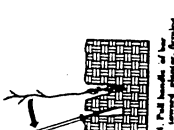
1. Insert planting bar into soil, and create hole.



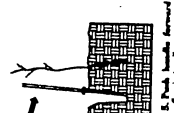
2. Remove planting bar and place seedling in hole.



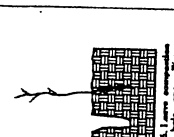
3. Insert planting bar into soil, and create hole.



4. Push handle forward and plant seedling.



5. Push handle forward and plant seedling.



6. Push handle forward and plant seedling.

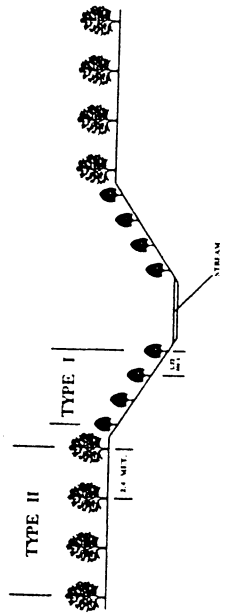
PLANTING NOTES:

PLANTING BAG
Seedling should be planted in a bag, and the bag should be removed after planting.

KBC PLANTING BAR
Planting bar should be used to create a hole in the soil, and the bar should be removed after planting.

ROOT PRUNING
If the seedling has a root collar, it should be pruned, if necessary, to the root collar.

STREAMBANK REFORESTATION TYPICAL



STREAMBANK REFORESTATION

MATURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

TYPE 1

50% SALIX NIGRA	BLACK WILLOW	300mm - 460mm BR
50% CORNUS ANOMUM	SILKY DOGWOOD	300mm - 460mm BR

TYPE 2

25% LIQUIDAMBAR STRACIFLUA	SWEETGUM	300mm - 460mm BR
25% PLATANUS OCCIDENTALIS	SYCAMORE	300mm - 460mm BR
25% PRUNUS SEROTINA	BLACK CHERRY	300mm - 460mm BR
25% BETULA NIGRA	RIVER BIRCH	300mm - 460mm BR

SEE PLAN SHEETS FOR AREAS TO BE PLANTED

STREAMBANK REFORESTATION DETAIL SHEET

N.C.D.O.T. ROADSIDE ENVIRONMENTAL UNIT

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Mr. Richard K. Spencer, Regulatory Project Manager
U.S. Army Corps of Engineers, Wilmington District
Wilmington Regulatory Field Office
69 Darlington Avenue
Wilmington, North Carolina 228402

If you only have questions regarding the appeal process you may also contact:

Mr. Arthur Middleton, Administrative Appeal
Review Officer
CESAD-ET-CO-R
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-8801

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:
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DIVISION ENGINEER:

Commander

U.S. Army Engineer Division, South Atlantic
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-3490

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: NCDOT/TIP R-210 (U.S. 1)	File Number: 1993-0-0570	Date: September 25, 2002
Attached is:		See Section below
<input checked="" type="checkbox"/> INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)		A
<input type="checkbox"/> PROFFERED PERMIT (Standard Permit or Letter of permission)		B
<input type="checkbox"/> PERMIT DENIAL		C
<input type="checkbox"/> APPROVED JURISDICTIONAL DETERMINATION		D
<input type="checkbox"/> PRELIMINARY JURISDICTIONAL DETERMINATION		E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.